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THE AMERICAN

ELEVATOR AND

GRAIN TRADE

Printed in U. S. A.

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Established 1882

PUBLISHED BY
Mitchell Brothers Publishing Co.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

One Dollar Per Annum
SINGLE COPIES, 15 CENTS

VOL. XLVI

431 South Dearborn Street, Chicago, Ill., August 15, 1927

NO. 2

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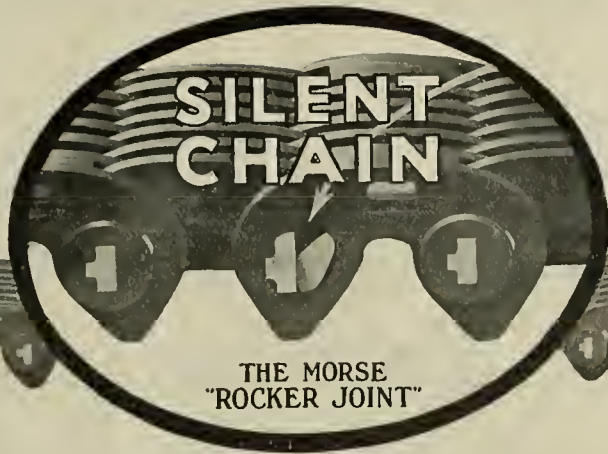
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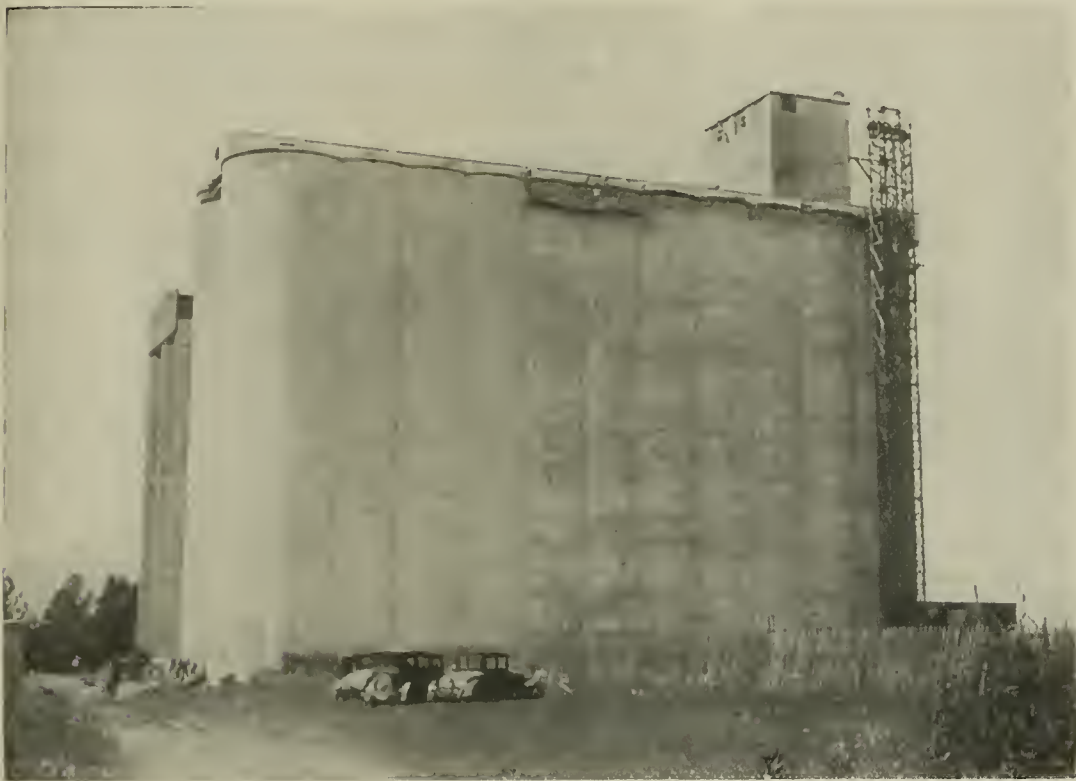
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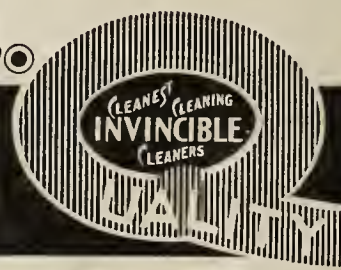
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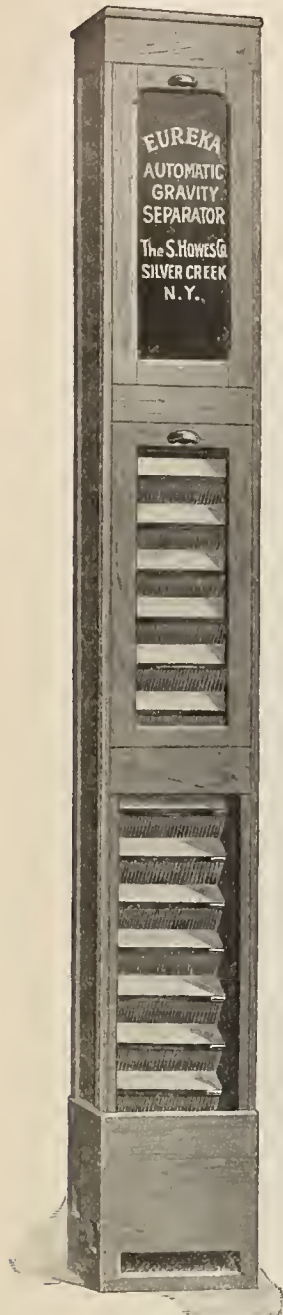
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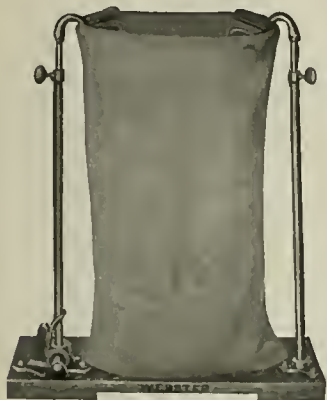
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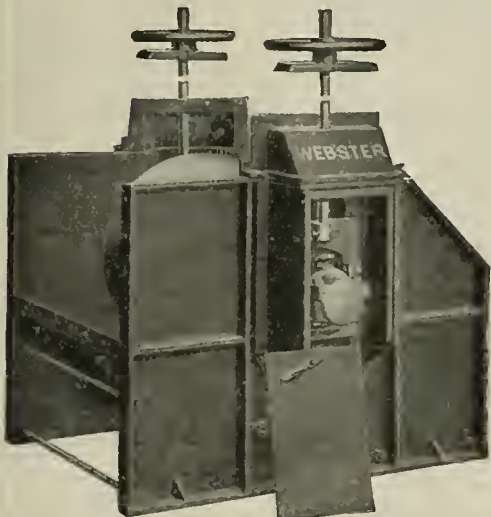
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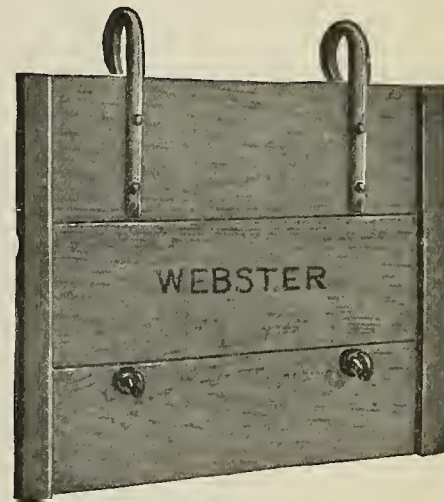
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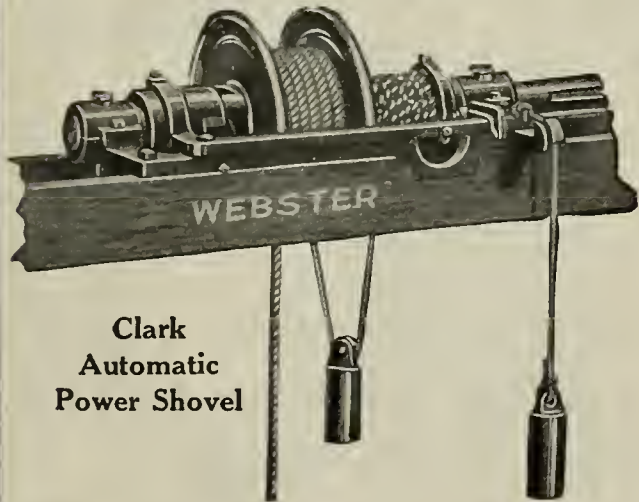
Car-Loading Spout



Elevator Boot



Power Shovel Scoop



Clark Automatic Power Shovel



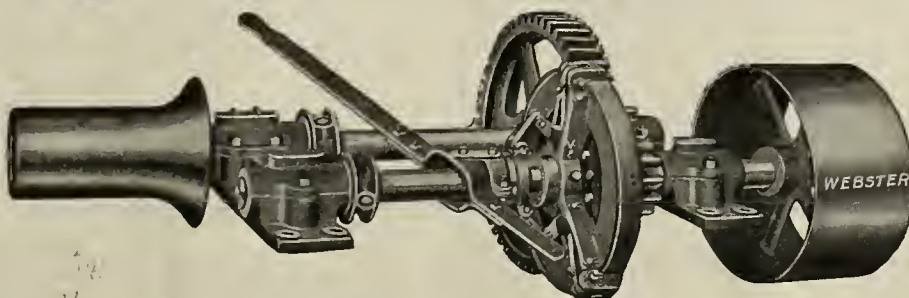
Sprocket Wheel



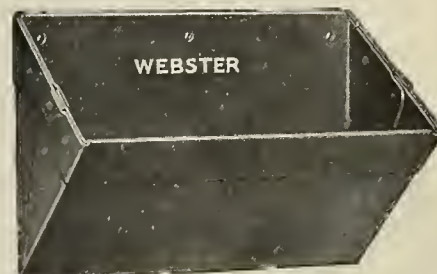
Hercules Grain Scoop



Salem Elevator Bucket

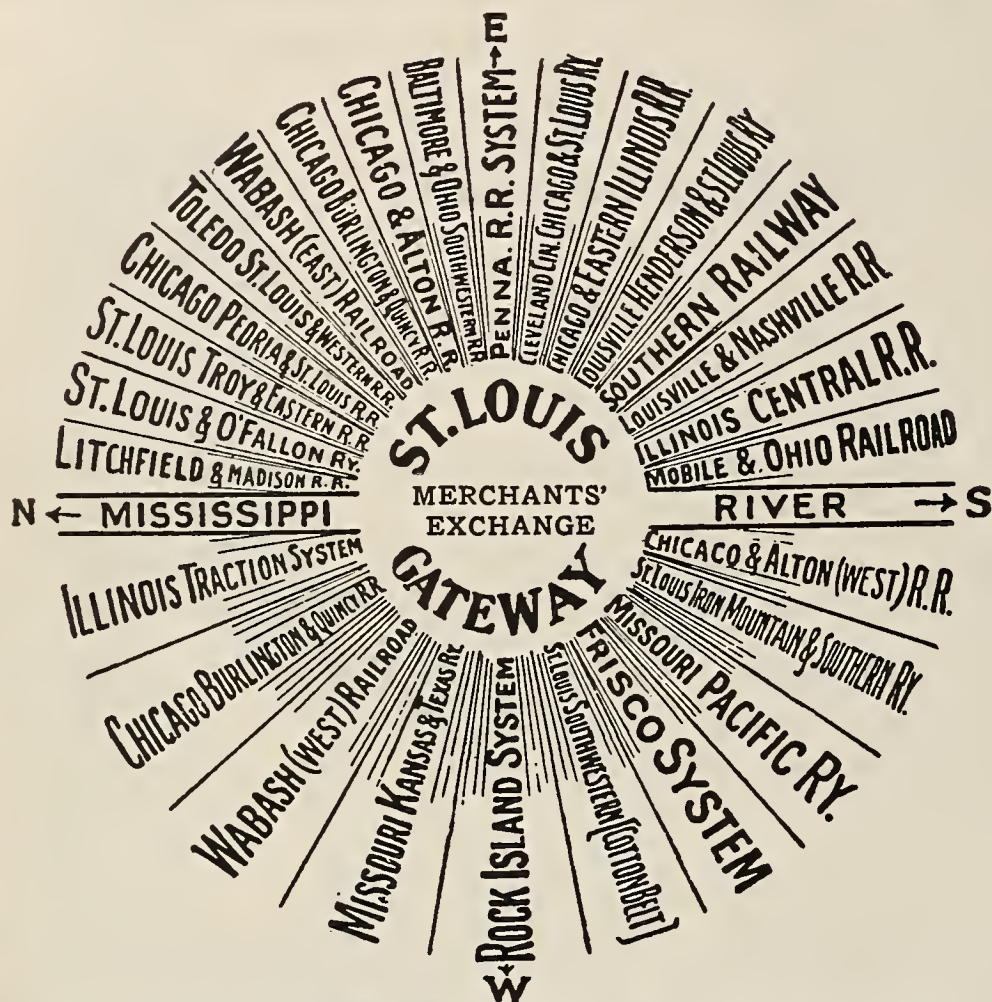


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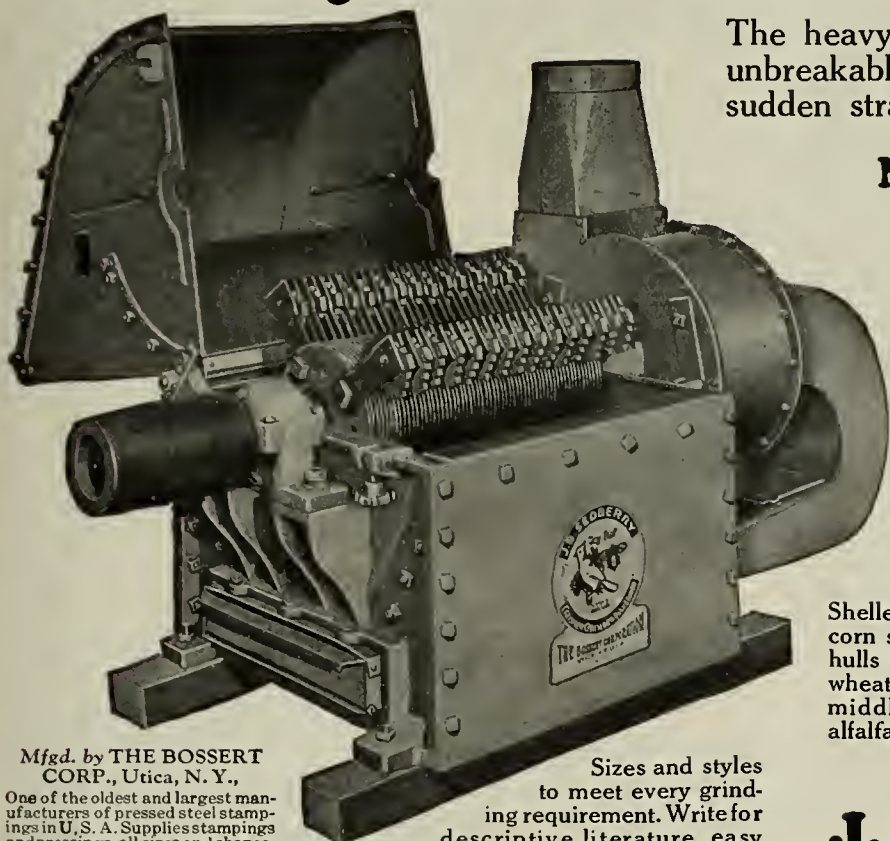
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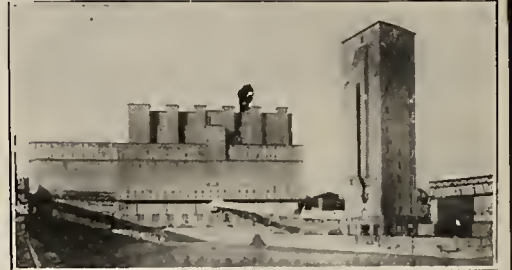
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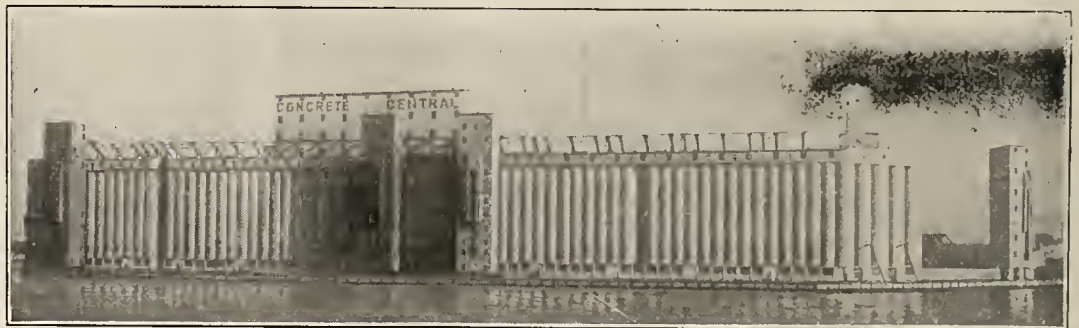
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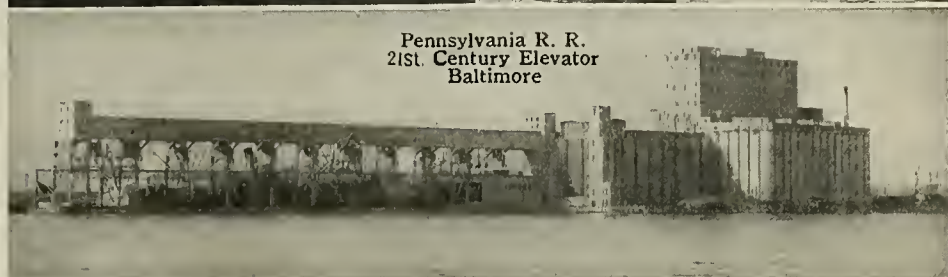
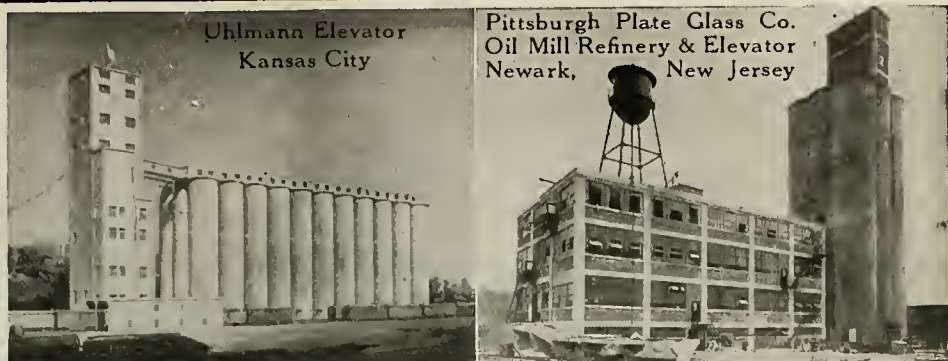
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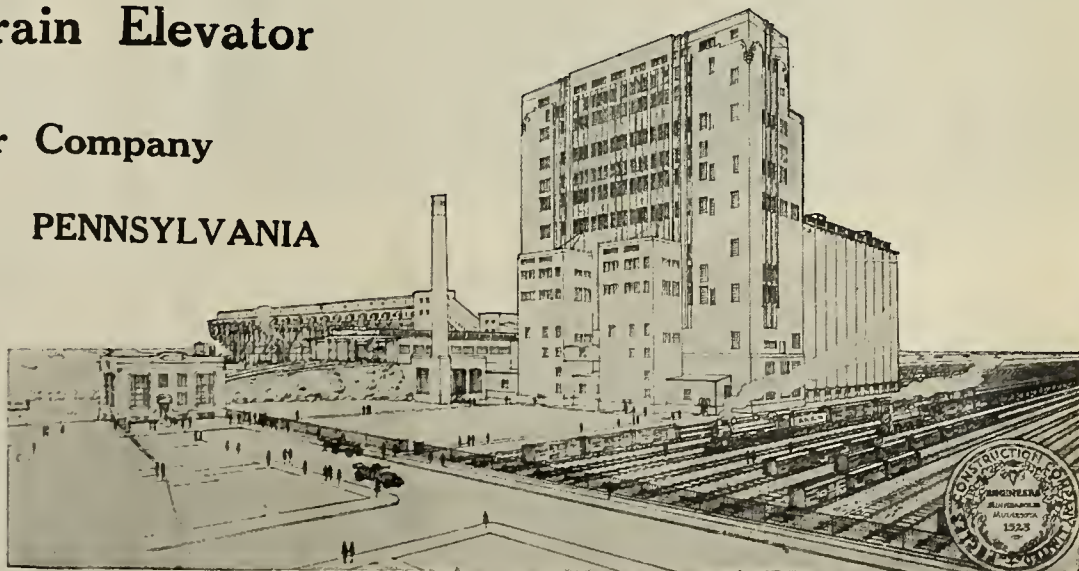
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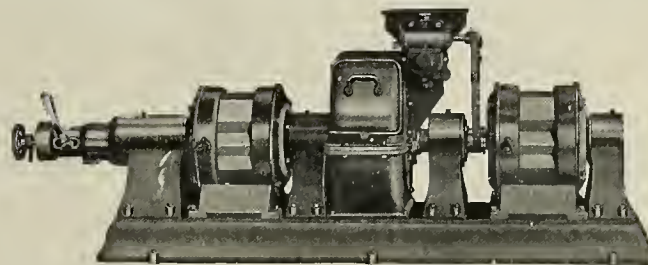
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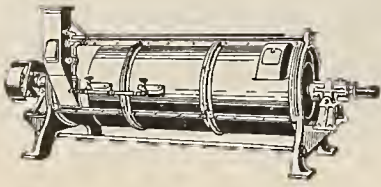
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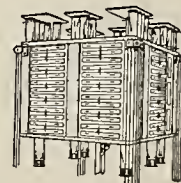
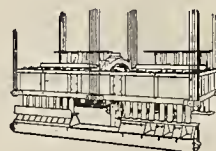
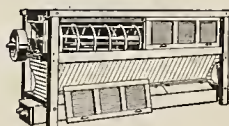
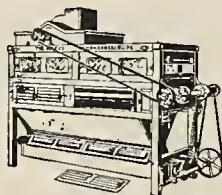
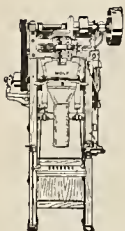
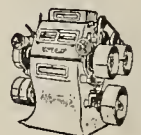
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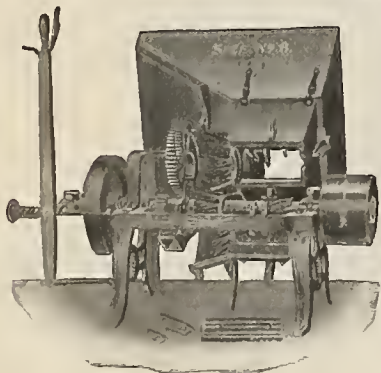
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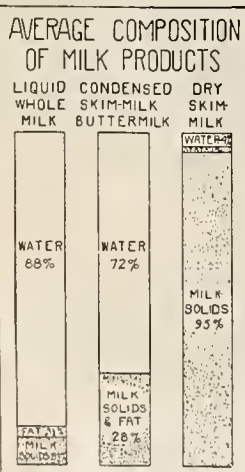
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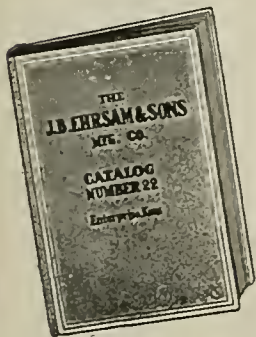
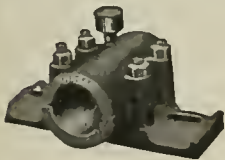
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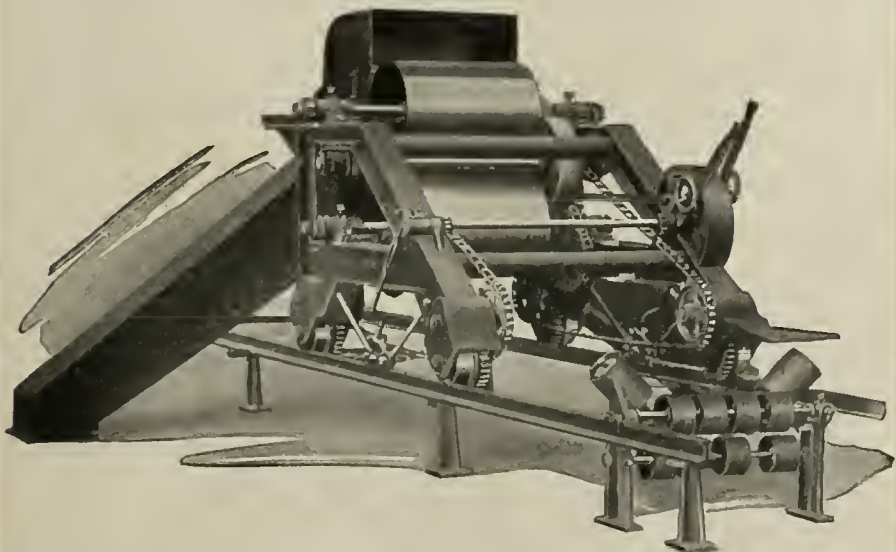
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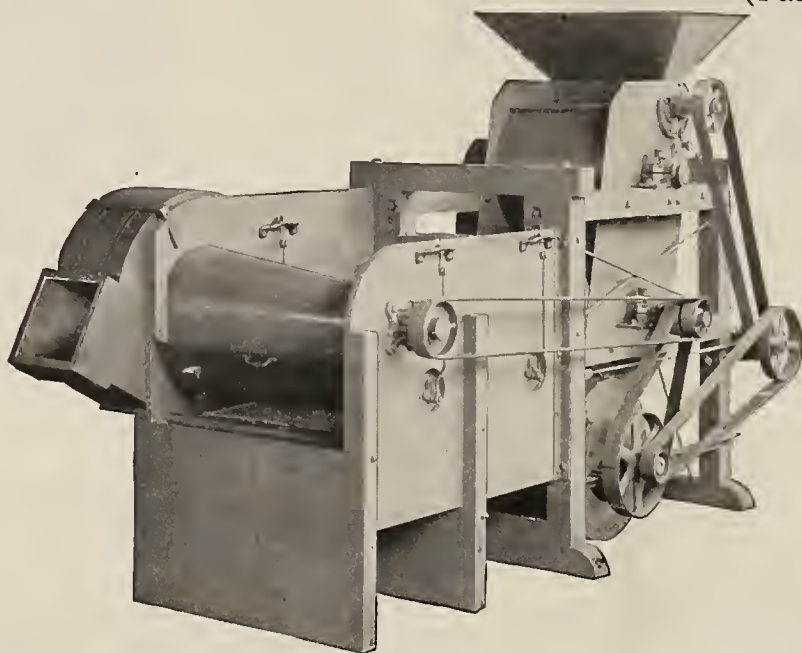
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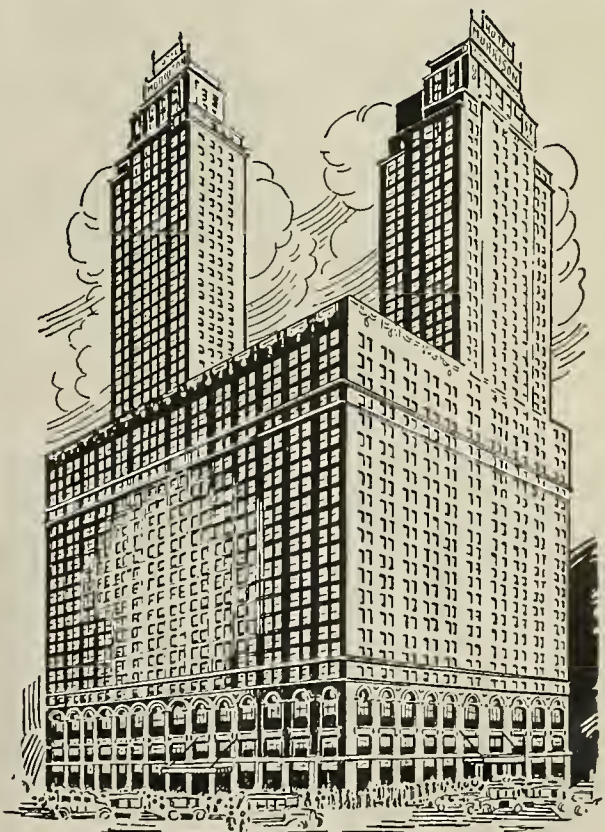
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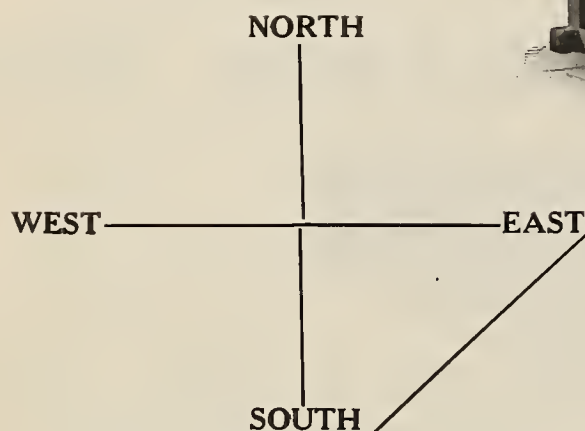
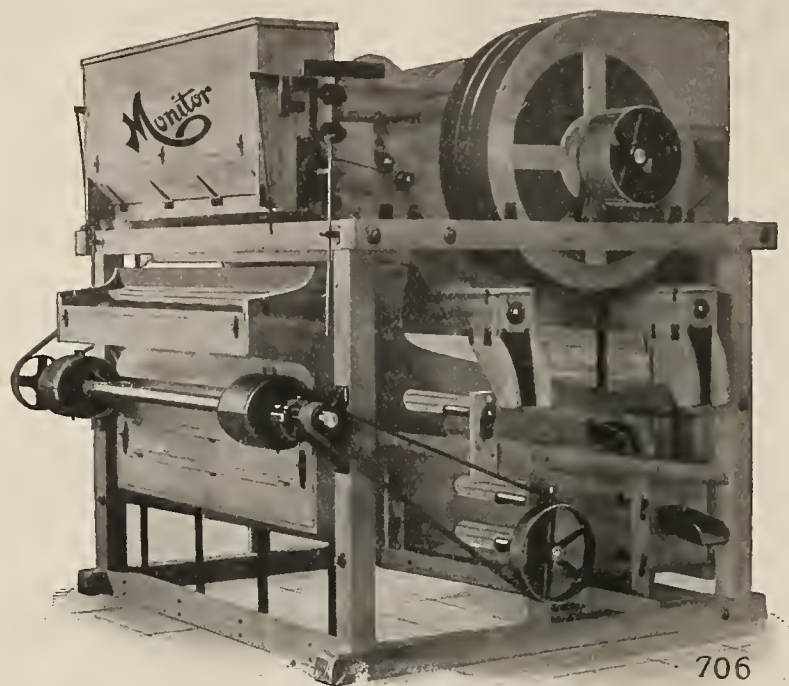
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Now, we ask you. What more convincing proof does one need as to which is the leading make of cleaner? Anything, to be popular, must be right and the MONITOR machines are certainly popular.

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Subscription price, \$1.00 per year. English and Foreign subscription, \$1.75 per year.

Established in 1882.

VOL. XLVI

CHICAGO, ILLINOIS, AUGUST 15, 1927

NO. 2

The New Staley Elevator

Reinforced Concrete Storage Unit Just Completed Adds 3,000,000 Bushels to Capacity of the A. E. Staley Manufacturing Company, Decatur, Ill.

By H. T. MORRIS

THE hum of the motors, purr of the machinery and swish of the elevating buckets is the formal announcement that the new Staley elevator, with a capacity of 3,000,000 bushels, is completed and ready for business. The cost of the project exceeded \$1,500,000.

This industrial project is of a dual purpose—one of storing corn, the other of merchandising grain on a major scale. The elevator is an adjunct to the corn refining plant. Ample storage facilities will enable the storing of vast stocks when the grain is moving freely from the farms through the country elevators. It might be considered in the capacity of a reserve.

The merchandising, which, in a measure, is an auxiliary to the corn refining plant, will give distinct advantages in the application of transit privileges. The increased buying power and accumulation of tonnage in the form of grain on hand will give more of a diversified outlet and better discrimination of out-bound tonnage. It will permit application of corn tonnage against not only the finished product, such as starch, un-mixed corn syrup and gluten feed, but of the raw material (corn), as well.

Although the company has been engaged in the merchandising of grain for some time, the new modern elevator will permit the entering of this field on a materially increased scale. Heretofore the A. E. Staley Manufacturing Company, Decatur, Ill., has dealt almost exclusively in corn. The merchandising will take it into the buying and selling of wheat and oats as well.

As the reader doubtless knows, the grain business is likened to many industries, in that the field of production and the field of consumption are distinct and widely separated. The largest producing territory embraces the states of Illinois, Missouri,

Iowa, Nebraska and other middle western states, whereas the territory of consumption lies in the northern, eastern and southern parts of the United States and eastern Canada. The new Staley elevator will serve in the capacity of a "go between" for the field of production and the field of consumption. The grain will be brought in from the producing states, unloaded, elevated, conditioned, stored and re-shipped to the consuming territories.

The elevator is located about a half mile east of the main Staley plant, but the ground between

feet and 229 feet high, or about as high as the average 22-story building.

There is a total of 37 bins with a combined capacity of 223,000 bushels. Eighteen of these bins are divided into two compartments—an upper and lower section, with cleaning or clipping machines located just underneath the upper and directly over the lower floor. These bins vary in size depending on the purpose for which they were designed. The sub-division walls reduce the capacity of the bins and make them more flexible for mixing and working purposes.

There are two receiving legs, three shipping legs, one drier leg, one screening leg, one clipper leg and one cleaner leg. The length over all of the elevating belts which will operate in each leg is 460 feet.

The receiving legs are equipped with 42-inch belts, with two rows of 20-inch buckets. The shipping legs have a 32-inch belt with two rows of 15-inch buckets. The cleaner leg belt is 26 inches wide with two rows of 12-inch buckets. The drier leg carries a 22-inch belt with a single row of 20-inch buckets. The screening leg is a 14-inch belt with a single row of 12-inch buckets. All buckets

are eight inches deep and eight inches wide with a 13-inch center, that is to say, they are spaced 13 inches apart on the belts. The double row of buckets are staggered.

The two receiving legs have a capacity of 25,000 bushels each per hour, whereas the capacity of the remaining legs in respective order is: Shipping—15,000 bushels each per hour; cleaner—12,000 bushels each per hour; drier—10,000 bushels each per hour; screening—8,000 bushels each per hour; and clipper—12,000 bushels each per hour.

There are seven floors (basement excluded) in



NEW ELEVATOR OF THE A. E. STALEY MANUFACTURING COMPANY, DECATUR, ILL.

the two is owned by the company and they are closely connected by Staley railroad lines and a good motor road. The building or group of buildings are of the most modern fireproof construction—reinforced steel and concrete, and are in seven units. These consist of the work house, storage bins, drier, bleacher, dust houses, receiving shed and shipping shed.

WORK HOUSE

The work house is so named because of the elevating, cleaning, clipping, mixing and similar work, which takes place in this unit. It is 82 feet by 63



DISTRIBUTING FLOOR OF THE NEW STALEY HOUSE



STARTING COMPENSATORS FOR 2,200-VOLT MOTORS IN STALEY ELEVATOR



STARTING COMPENSATORS IN THE ELEVATOR CONVEYOR GALLERY

the workhouse, designated as follows: First—work floor, second—cleaner floor, third—bin floor, fourth—distributing floor, fifth—scale floor, sixth—leg heads, and seventh—machinery.

The equipment in the work house, exclusive of conveyor belts, includes two 2,500-bushel and three 2,000-bushel Fairbanks-Morse Hopper Scales. There are two Monitor Double Screening Separators, each of 5,000 bushels' capacity per hour, belt driven, made by the Huntley Manufacturing Company. There are two Monitor Oat Clippers, made by the same company, chain driven, with a capacity of 1,500 bushels each per hour.

There is one modern seed separator, and one modern cylinder screening separator of 500-700 bushels' capacity per hour, both chain driven. There is sufficient bin capacity over and under each machine to keep them running for approximately 12 hours.

There are five spouts located on the distributing floor. As a further explanation, these are jointed spouts, suspended from a circular track. The spouts are matched up with fixed spouts on the bin floor leading to the various bins. It might be more clear to say that through a series of combinations of flexible and fixed spouts, the grain is routed from the scales to any bin or compartment in the work house.

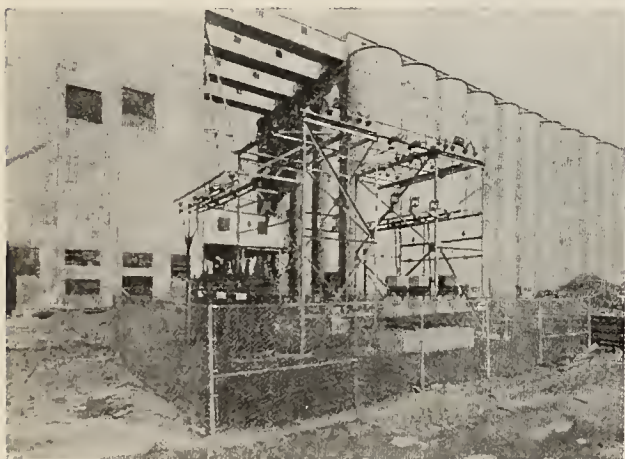
The fixed spouts have a minimum slope of eight in 12 (eight-inch drop for every foot of run). The fixed spouts are 16 inches in diameter.

STORAGE BINS

There is a battery of 60 storage tanks, each 24 feet in diameter and 120 feet high, with a capacity of 40,000 bushels each. The interstices, or spaces between the individual bins, are also utilized for storage, giving an additional capacity of 10,000 bushels to each of these bins. This makes a combined storage capacity of 3,000,000 bushels.

Each tank and interstice is hopped or self-cleaning. The storage tanks are served overhead by four cupped rubber conveyor belts, each 42 inches wide and 800 feet long, with an automatic tripper on each belt.

The grain is pulled from the bin floor of the work house through overhead bridges and into the



NEW ELEVATOR AND TRANSFORMER STATION

cupola of the storage tanks, and thence tripped into any desired tank.

The cupola has an average overhead clearance of 10 feet and is unusually light and well ventilated by windows completely surrounding it. These are all of ventilating type steel sash, 12 lights to each sash, each glass 14 inches by 18 inches.

Each of the storage tanks and interstices is equipped with the Zeleny Thermometer System, controlled from the panel room in the cupola. The recording of this system automatically indicates the temperature in each tank at intervals of 10 feet elevation in the interstices and six feet elevation in the circular tanks.

In the basement under the tanks are three belt conveyors, the same size and width as the overhead belts, i.e., 42 inches wide by 800 feet long, running against belt concentrators which have a tendency to slightly cup the belts.

The hoppers under the tanks are equipped with rack and pinion bin gates, controlled at loading

point on the belt, which gives any desired flow. The grain is deposited on the belts and discharged to the shipping legs in the workhouse, where it is elevated and spouted to any desired machine, bin or compartment, or loaded out in cars.

CORN DRIER

The drier building is adjacent to the work house and is 60 feet by 48 feet, 129 feet high. The drier is of the company's own design. The heat is created by burning coke. The hot air is forced or blown through the grains in the drier by a large suction fan connected directly with the furnace and a discharge connected directly with the driers through a duct.

The grain is elevated to the upper bins by a leg in the work house which discharges onto a belt 30 inches in width, from which it is distributed to the various bins above the driers.

From the bins the grain discharges through spouts to the driers. These driers are three feet high, the drier part being the upper 12 feet and the cooler through which the warm grain flows to be cooled and which is directly underneath the drier, is nine feet high.

The grain is cooled by air which is taken from



TRACK SHED

the outside through a fan. Directly under the driers are bins into which the cooled grain flows from the cooler. The 30-inch belt under the bins receives the grain from them and discharges it onto an elevator leg which delivers the grain to the cars or to the storage bins. The capacity of the driers is 6,000 bushels per hour. This method differs from the average terminal elevator in that kilns are used to dry the moist or green grain.

BLEACHER BUILDING

This building is located 70 feet east of the drier house. It consists of two reinforced concrete storage bins, 20 feet inside diameter by 111 feet high, each having intermediate bottoms dividing them into two bins. There is also a six foot in diameter bleacher bin located in the angular space between the storage bins.

The grain to be bleached is transferred from the work house on the same conveyor feeding the drier and temporarily stored in the upper bins, from which it is elevated to the bleaching bin through a special bleacher leg. From the bleacher it is spouted to a screw conveyor which carries it to either of the lower bins and from there returns it to the work house on the same conveyor and leg that serves the drier return. The bleacher has a capacity of 3,000 bushels per hour and is of the Willey-Ellis manufacture.

DUST HOUSE

This unit is located 150 feet from the drier house, with concrete foundation and floor and with steel framework. Above this building is a hopper dust collector of 2,000 bushels' capacity. This, in reality, is the central or major dust col-

lector of all the buildings. All units are equipped with a dust collecting system of galvanized lateral pipes and floor sweeps emptying into the trunk lines of various size. A suction fan pulling on these ducts at various intervals picks up all particles of dust anywhere in the buildings and drives the collection to the central location, where it is deposited in the hopper from which the dust will be bagged.

RECEIVING SHED

The receiving shed which joins the work house on the north, is of steel frame with Transite siding.



SCALE FLOOR

This structure is 102 feet by 79 feet, 29 feet high. This is served by four railroad tracks, enabling the unloading of two cars on each track or a total of eight at the same time. The tracks are served by two unloading sinks or a total of eight.

Every rack has two portable shovel frames, each equipped with a Peterson Car Door Opener. The advantage of the portable equipment lies in the fact that the cars, when spotted at the sinks, do not have to be uncoupled but rather the portable equipment can be moved so that it is opposite the car door.

Each track is equipped with motor driven Clark-Beatty Automatic Shovels, with ropes attached to scoops of about two feet by three feet. The car door openers are operated by compressed air. The head of the opener, which is likened to a ram 10 inches square, is equipped with calks to prevent slipping. By placing the head of the machine against each grain door, commencing at the top, they are automatically pushed in and up, thus permitting the grain to run out of the car into the sink underneath.

The eight sinks have a capacity of 2,500 bushels each and are served by an underground cupped conveyor belt 42 inches wide. Four sinks empty onto each of these belts and the grain is conveyed to the boot of the elevator leg. The slides at the bottom of the sinks are controlled by a system of interlocking levers.

SHIPPING SHED

This unit is located between the work house and storage tanks, or just underneath the sacking room, and is 82 feet by 42 feet, 25 feet high.

This shed is served by three railroad tracks with a fourth to be used as a passing track. The loading is done by gravity. The tracks are served by four shipping spouts reaching from the scale floor to the interior of the cars when spotted. In addition to this, there are two metal loading shoots extending from the sacking room to the cars (when spotted for loading) for the purpose of loading sacked grain.

The bagging of grain, takes place in the balcony or sacking room immediately above the loading out track, which is equipped with four automatic bagging scales, with a capacity of six bushels to each dump and from four to six discharges per minute, as well as two Union Special Sewing Machines.

POWER AND EQUIPMENT

There are 56 motors required in the operation of the different units, varying in size from a 5-horsepower motor on the sacking machine to a 175-horsepower motor on the large receiving elevators. The

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total connected horsepower in motors is 2,200 horsepower. Twenty seven of the motors, in fact all motors 25-horsepower and larger, are built for 2,200 volt operation and the other 29 are for 440 volt. All motors are of the latest approved type and were furnished by the General Electric Company, Schenectady, N. Y.

The smallest motor used in the regular operation of unloading, storing, and reloading grain is of 10-horsepower. These are on the mechanical shovels.

The largest motors in use are the two 175-horsepower motors on the receiving elevators or legs and are shown mounted in the second illustration at the bottom of the first page, one on the upper left and right hand corner. This picture also gives a good example of the starting compensators used for starting the 2,200-volt motors. These are the steel boxes in the lower left-hand corner. There are nine large motors on this floor and is the largest center of power use in the entire elevator. The picture shows a view of the north side and receiving side of the work house.

After the grain has been weighed, cleaned and assorted, it finds its way to the bin floor where it is stored in the storage bins as shown in the pictures below and on the first page. There are four of the large belt conveyors shown, each driven by a 50-horsepower motor. The picture on the first page shows the general arrangement of these belts and starting compensators for two of the motors. The illustration below shows all four motors and their equipment.

All motors are wired for service in the most approved manner to meet the exacting requirements of the insurance laws in order to provide the maximum protection. Each motor circuit contains an all circuit breaker, overload relays, fuses, disconnecting switches, and ammeters. The ammeters are used to indicate the power being used by any one motor. All apparatus where joined together are provided with felt gaskets and all precaution taken so as to prevent any grain dust coming into contact with the working part of the equipment. It is fitting to note that the starting compensators for the 2,200-volt motors are the first application of such equipment in an elevator and is one of the first installations to be placed on any service.

Electric power is furnished from the central generating plant of company and supplied to the elevator by means of a high voltage transmission line approximately a mile in length. Power at the main plant is generated at 2,300 volts and carried from



FOUR 50-HORSEPOWER MOTORS FOR THE CONVEYORS

the central power station to a step-up transformer station at the main plant by specially constructed steel towers located on the manufacturing building.

At this step-up transformer station, the voltage is increased from 2,300 volts to 13,000 volts, and is thence transmitted over the high tension line to the elevator transformer station where the 13,000 volts is reduced to 2,300 and 440 volts for the motor circuits in the elevator proper. A special transformer for reducing the 13,000 volts to 220 and 110 is also used for the lighting service. Power is carried from these transformers into the elevator proper through a system of underground lead covered cables.

The elevator substation represents the best

practice in such structures and contains three 500-Kva self-cooled transformers for 2,300 volts and three 200-Kva., 440-volt and one 50-Kva lighting transformer or a total of 2,150-Kva. The transformer equipment at the main plant supplying this load consists of three 667-Kva or 2,000-Kva capacity. Lightning arrestors are provided for absorbing lightning which might strike the lines in case of storms. The 2,300-volt transformers are shown in the left center of the picture and the lightning arrestors are hiding the 440-volt transformers.

The power upon entering the elevator building proper is brought to a nine panel switchboard (see illustration to the right), where it is connected to a copper bus and thence distributed to the various motor circuits. There are four 2,300-volt circuits and three 440-volt, the other panels being used for the incoming lines. The switchboard is located in a specially designed room located between the work house and drier building and is the distribution point for all of the power used in the elevator.

There are slightly more than 350 lights scattered throughout the various parts of the elevator and each fixture is supplied with a special vapor proof, guarded globe so as to preclude the possibility of a spark from any part of the lighting system in case a lamp should be broken.

A description of the plant would be incomplete without following a shipment of grain through the elevator—step by step. First a car of grain is spotted in the unloading shed directly over one of the eight sinks. The portable shovel frame is then placed directly opposite the car door. The grain doors are then pushed in with a Peterson Car Door Opener, and the grain doors removed.

While the grain is running from the car by gravity, the shovelers (unloading men) enter the car, working towards the ends, pulling the grain to the door with power shovels. Ropes attached to the shovels are connected to a drum on the shovel machine. A counter weight throws in a clutch on the drum, setting it in motion and gradually winding up the rope, dragging the shovels to the car door. The clutch automatically releases and the operator climbs back into the load of corn and this operation is repeated until all of the grain has been removed from the car, except such as may have remained in the corners or lining. The car is then thoroughly cleaned with brooms so that the shipper will get benefit, as far as possible, of every pound of corn originally loaded.

By means of an interlocking lever, the gate at the bottom of the sink is opened, permitting the grain to feed onto a conveyor belt, which deposits it into a boot in the basement of the workhouse. At this point the grain is picked up by elevating buckets, hoisted to the garner bin just under the top floor and directly over the scales.

The valve in the garner bin is operated, permitting the grain to run into the scales, at which point it is weighed. The weight is recorded on a printed ticket. This is done by a self-registering beam, and is a guarantee against erroneous reading or transportation of figures by the weighman. From here the grain is distributed by means of spouts to various bins in the work house or onto belts leading to the storage tanks.

Although eight cars can be unloaded at the same time, the arrangement of the interlocking levers prohibits more than one valve in the bottom of the sinks being opened at the same time. That is to say, four sinks empty onto each conveyor belt and at no time can more than one valve be opened. This precludes the possibility of mixing grain from different cars. Each unloading and loading out track is equipped with a car puller capable of pulling 25 loaded cars, either from or to the sheds.

SUMMARY

All chain and belt drives are completely housed as a safety precaution. The buildings and sheds are equipped with ventilating sky lights and the roofs are of built-up construction. There is a total of 10,831 feet, or in excess of two miles of various width belting. The daily handling capacity of the elevator is 400 cars.

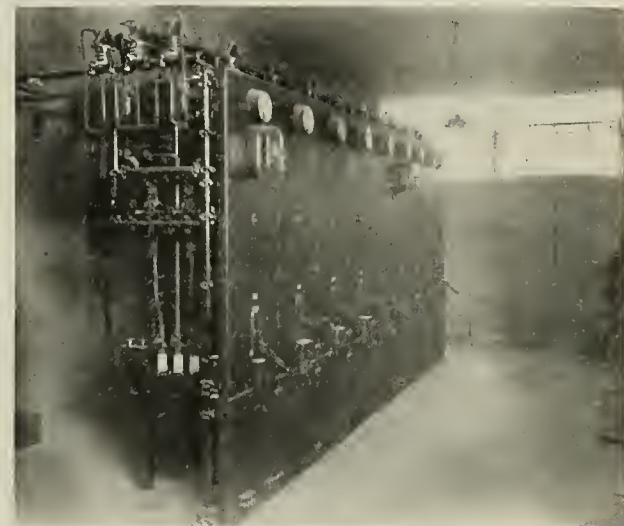
All spouting, sheet metal work and machines are painted and finished in a French grey. The work

house is served by an automatic passenger elevator, extending from the first to the top floor.

The drier building is equipped with a Humphrey Man-Hoist extending from the basement to the top floor.

A pneumatic carrier tube will convey scale tickets and so forth from the weighman's office to the superintendent's office on the first floor of the work house. For the purpose of communication, there is an automatic inter-plant telephone system, connecting all floors of the various buildings.

There are in excess of three miles of railroad track adjacent to the elevator, which has direct connection with the company's general yards—totaling 28 miles of track. There is also direct and indirect track connection with the Wabash, Illinois



NINE-PANEL SWITCHBOARD IN ELEVATOR

Central, Pennsylvania, Baltimore & Ohio, and Illinois Traction System railroads.

The new plant was designed and built by the Folwell-Ahlskog Company of Chicago.

Thus a dream of the founder and president, A. E. Staley, becomes an actuality.

GRAIN CARGO SUIT REVERSED

The Circuit Court of Appeals has recently reversed the cargo damage claim aggregating \$13,900 with interest at 8 per cent rendered by the District Court of Southern Florida District in favor of the Florida Grain & Elevator Company against the Shipping Board Merchant Fleet Corporation on account of delay in a shipment of corn from Florida to Havana.

This suit followed the delay in shipping the corn resulting in a deterioration of the corn in value and the refusal of the purchasers to accept it. The plaintiff placed the responsibility on the fleet corporation stating that it was due to the failure of the corporation to supply adequate funds to pay for unloading the cargo and that a strike at that port resulted in the ship being held up.

The decision was appealed on the ground that the District Court was in error in accepting the amount of damages as the difference being the amount realized at the sale in December and the contract price, rather than the difference between the sale price and the market price, and also that the rate of interest should be 4 per cent.

The Appellate Court reversed the District Court on both points and remanded the case to the District Court with instructions to allow opportunity to the complaining company to take further testimony in the question of damages.

WHEAT SMUT SPECIAL

In line with the strenuous efforts being made to educate the farmer in checking the spread of wheat smut, the "wheat smut special" train will leave Denver, Colo., on August 15, for a trip through eastern Colorado, parts of Kansas and western Nebraska over the Burlington Route. This is the first train of its kind and is being sponsored by the railroad, agricultural colleges and the Omaha Grain Exchange. Its purpose is to instruct farmers in better methods of growing wheat and to aid them in combating grain diseases.

Increasing the Wheat Yield in Italy

A Review of Agricultural Conditions in Italy By a Noted Austrian Economist Recently Sent to the Department of Agriculture by Commissioner Haas at Berlin

By Dr. H. KALLBRUNNER

ITALIAN agricultural production is on so low a plane that the Government has recently instituted vigorous measures to improve it.

The cause of this situation lies chiefly in the imperfection of agricultural technic, which in no way comes up to the demands of modern science and practice. For example, in many cases low quality, uncleaned seed is used; and the work on the soil is done with somewhat out-of-date implements, which results in poor work, necessitates a large amount of labor in the application and only seldom allows the field work to be finished at the proper time. These circumstances, and also, according to our experience, very backward technic in land cultivation, result in the Italian peasant needing the help of much human and animal labor, which naturally means a very considerable consumption of the crop. (A large part of every farm is sown with lucerne [Alfalfa], which just about furnishes the feed required for the work animals but does not allow the keeping of milk cows.) Fertilizing conditions are very bad; although the use of artificial fertilizer is increasing, it is in many cases applied in a most unsatisfactory way.

A large part of the cultivable land is left unused.



AN AMERICAN BINDER WITH ITALIAN MOTIVE POWER

Large areas are an absolute swamp, whose neighboring districts cannot be inhabited because of the danger of malaria fever. In many parts of Italy, especially in the south, much of the land belongs to large estate owners who leave the utilization of their lands in the hands of tenants who are not able to attain yields worth mentioning.

Even though the climatic conditions in large parts of Italy are not very favorable for intensive agriculture, there still exists the possibility of increasing the soil production quite considerably by increasing the cultivated area as well as the yield per acre.

The first thing that strikes one when looking at the Italian endeavors, is the immense energy and skill with which the whole government apparatus, church, school, army, press, the movies, etc., have been placed in the service of agricultural encouragement, which has been declared a matter of great national importance and one which demands the unconditional surrender of all individual interests. One is conscious of an atmosphere, which makes one believe, that the expression "Battle of Grain" was not invented by chance or accident, but that all the measures taken are along regular military lines, as under martial law during the war period. As to the "Battle of Grain" itself:

By the Royal Decree of July 4, 1925, the general headquarters of the "Battle", the permanent Grain Committee, (Comito permanente per il Grano) was called into life. Minister President Mussolini acts as chairman. In the individual provinces provincial commissions were set up, comprising the following persons: The technical leader of the agri-

cultural corporations, a representative of the Fascist organization, two experts of the agricultural technic syndicate, a representative of the agricultural labor organizations, and the three farmers who have the highest yield per acre in the province.

One of the first steps taken was the re-introduction of the wheat import duties, which were fixed at the extraordinarily high rate 39.2 cents per bushel of wheat. It was hoped that as a result it would be possible to keep the price level of wheat high, and so insure the production of wheat for all time.

At the same time the Italian Government began to found a number of new experiment stations, and also to expand and extend the existing experiment stations and high schools. Within a short time there are to be set up in all provinces efficient experiment stations, the building up and organization of which must comply with the requirements of agriculture. It has been ascertained, that these stations are exemplarily organized and are carried on with great understanding. During the budget year 1925-26, \$156,800 were placed at their disposal for the development of their experiment fields.

The main task in the promotion of agriculture lies in the hands of the itinerant instructors who are located all over the whole country and have already done excellent work. During the year 1925-26 more than 200 new instructors were taken on and a further 100 places are being arranged. The amount allotted in the budget for the maintenance of the instructors was increased from \$137,200 to \$274,400 (part of the costs have to be borne by local associations).

Model fields, about one hectare (2.471 acres) in size, are being set up under the direction of the instructors in each community. Part of the costs (\$274,000 during the year 1925-26) are borne by the state. Experiments are made on these fields with different methods of soil culture and the results exhibited to the farmers on a great many different occasions.

The Government is endeavoring to promote the cultivation of grain, partly also by granting subsidies to the co-operatives (\$156,800 in 1925-26) and certain amounts for the expansion of necessary seed cleaning plants (\$78,400 in 1925-26). These, as well as the state cleaning plants, take the low quality seed which the farmers were in the habit of using before, and in exchange for this grain which has not been cleaned and is often damaged by insects, give an equal amount of healthy and well cultivated grain which has been thoroughly cleaned, without any payment. By this method the bad grades are replaced by new and better grades within a short time. Misuse is hindered by strict control.

Lectures, tours of inspection, pamphlets, popular newspapers, expositions*, moving pictures, etc., are used to draw the farmers, who of course, are often rather precautions towards these new propositions. Premiums, often amounting to considerable sums, for certain accomplishments and also the prospects of all kinds of honors and prizes at expositions, etc., also serve to encourage greater accomplishments. It is very interesting to observe that in all measures, the granting of premiums, expositions, etc., even the condition of the very smallest farmer is taken into consideration, so that in no competition does he find himself in an unfavorable position as compared with the large estate owner, who naturally has many more machines and appliances at his disposal. (In connection with

*Small exhibitions with which lectures, demonstrations, and excursion trips are generally connected take place during the months of August and September in many Italian towns. The largest affair took place in Padua last year on August 28. In March there was an exposition in Verona at which foreign exhibitors were allowed to take part.

the above it is worth noticing that the farmers obtaining the highest yields—of whom it can also be taken for granted that they are the most diligent—are elected into the provincial committees. Thus an excellent choice of members is made).

The amount devoted to the carrying out of all these measures is very considerable. During the financial year 1925-26 the total propaganda costs amounted to \$3,136,000. Besides this, financial assistance was given as follows: \$98,000 to local organizations for propaganda work; \$39,200 to the press; \$19,600 for the production of agricultural films; and \$19,600 traveling agricultural instructor associations and agricultural worker unions, etc. Over \$78,400 were also allotted for the "Grain Victory" competition, as well as \$58,800 for similar local competitions.

Another activity is the demonstration of new or unknown types of agricultural machines. Furthermore in order to ascertain the efficiency of the various types of machines, competitions are organized, and whenever there are specific problems to be solved, the manufacturers are given encouragement by prize competitions and the granting of premiums. The importation of agricultural machinery is encouraged by freedom tariffs, and the use of the same is encouraged by freeing the fuel used for this purpose from taxation. One cannot agree with all the measures taken by the Government along this line, as for example, it is noticeable that interest is chiefly centered on large farm machinery, and contrary to all other measures, where the interests of the small farmers fully recognized, too little attention is paid to the old-



HARVESTING WITH SICKLE ON A SMALL FARM

fashioned equipment of the small farms. It is also the case that the improvement of individual machine types is being absolutely neglected. It is interesting to note the efforts being made toward increased use of electricity in agriculture, especially for the driving of large plows.

Besides these measures, which aim chiefly at an increased yield per acre, efforts are also being made to increase the sown area by promising large premiums for the utilization of uncultivated land. Whenever premiums are given, consideration is always taken of the difficulties overcome in the improvement work. On the other hand, no excuses for delay or other pretexts brought forward by owners of improvable land are considered, and if no notice is taken of the friendly suggestions given, orders to improve and sow a certain area with wheat are simply given to be executed within an appointed time. Thus, for example, the landowners of Agro-Romano, having already been told to carry out certain improvement work, received an order dated July 7, 1925, to sow at least one-fifth of the cultivated area with grain. Every landowner, who up to that time, had not received any improvement orders, was ordered on July 16, 1925, to cultivate at least 30 per cent of the cultivatable area in the years 1925 to 1927 and at least 50 per cent during the following years, and to sow 50 per cent of the newly cultivated land with grain.

The government has also placed very large funds at the disposal of this work. First, they set up an improvement fund which is to be increased by annual allotments. (The decree of December 30, 1923, provided for a special budget fund out of which improvement loans are to be given). Be-

sides this fund the Government allotted a certain amount of money to certain other work, for example, \$1,732,000 as a loan for the purchasing of motor tractors, to be used for wasteland cultivation. Then \$21,650 are for premiums to be given to farmers who have to overcome unusual difficulties in cultivating their land. For example, farmers with very stony land who cultivate the same to a depth of 15.7 inches receive premiums up to \$6.50; those cultivating the soil to a depth of 27.6 inches, or who have to make use of dynamite in order to improve the land, can receive premiums up to \$6.50 per acre.

Worthy of note also is the law put into force July 16, 1924, for measures for land improvement to be taken in the public interest which brings the carrying out of the improvement work under certain system, marked by the fact that the public interest is placed before that of the landowner. For example, under given circumstances it is possi-

ble, through the Ministry of Economics, to expropriate the land of a farmer offering opposition to the improvement work.

The chief interest of agricultural improvement naturally centers around the production of wheat. However, a further development in the culture of other agricultural products is also being aimed at, such as maize, rice, sugar-beets, flax, vines, fruit, tobacco and lucerne. The increased production of these products is to be found chiefly in a higher yield per acre.

It is evident that endeavors are being made to improve the co-operatives in their various forms, and thus to improve somewhat the financial situation of the country credit organizations. During the years 1925 to 1927 the amount of \$4,195,000 was furnished by the Government for replenishing the money stocks of the credit institutions.

Further, the "Battle of Grain" is also to be waged in the Italian colonies, especially in Tripoli.

sota. Perhaps the main reason why the J. W. Stewart Company has succeeded in the hay as well as grain business, where others, by the score, have failed, is that its hay is *merchandised*. It is not looked upon as a raw product that cannot be advertised. Illustrated circulars, calendars, letters, and price lists are mailed at a great rate, and the necessary 1 or 2 or 3 per cent of these shots hit the bull's eye. The system works. Both large and small accounts are treated with consideration. One of the most notable of the former is an account in Waco, Texas, for which as high as 2,000 tons have been assigned at a crack. The hay is bought outright in all cases, and sold in the same manner, basis of track.

Grain is sold direct, for the most part, to local mills and to dealers in nearby markets. The outlook for grain trading, as well as for hay and feed sales, Mr. Stewart believes, is thoroughly good for the coming year. The company's volume of corn sent to Wichita, Kan., last year was 75,000 bushels. The wholesale business in Purina feeds, flour, salt, etc., is an important one. Chelsea is the funnel through which such towns as Foyil, Bushyhead, Cattle, and Whiteoak are supplied, and the bulk of this essential trade is handled through the channel of the J. W. Stewart Company.

The original elevator of the company burned during the war, effecting a loss of \$16,000 which was but half covered by insurance. Rebuilding took place in 1918, and the Chelsea grain storage capacity now is between 40,000 and 50,000 bushels. The two houses of the company are but three blocks apart, and are served by the Frisco line, for which the president of the company once rail-roaded much to the dismay of his friends. Receiving and dispatching capacity is about 5,000 bushels per hour.

Two ball bearing, electric motors, rated at 55 horsepower, provide the power for the three large cleaners, two corn shellers, and other elevator equipment. The corn shelling capacity is 1,000 bushels per hour. The largest cleaning and shelling machines are Great Westerns. One No. 3 Jay-Bee Feed Mill is in operation day in and day out, giving good results to both the feeders and the company. The scourer is of the S. Howes Company make. From the hopper scale the grain is carried on a 14-inch belt conveyor.

In June, 1926, the old Chelsea mill and elevator

Energetic Merchandising Expands Trade of Oklahoma Firm

Stranger In a Strange Land Builds One of Sooner State's Leading Grain Business In Less Than Two Decades

THAT this account of the J. W. Stewart Company, Chelsea, Okla., may not be one of the sickeningly sweet success myths which sometimes are offered in recounting the achievements of a progressive firm, we propose to put the owner and operator of this concern, J. W. Stewart, under a journalistic spotlight. This will show his defects,

less "roamer." He spent three years with the Frisco before starting a general merchandise business in Bushyhead. After this enterprise had become well established, the misfortune of fire occurred in 1916 and the business so carefully built was destroyed in two hours time. The loss was \$12,000. The insurance coverage was \$4,000. Mr. Stewart, however, had started a hay business in 1910, under the firm name of Stewart & Goodman. This sideline business after the fire, was moved to Chelsea, where a large grocery business also was taken over by Mr. Stewart. In 1919, his partner in the hay business sold out, and thus the J. W. Stewart Company came into being. At the close of the war, the grocery business was sold, and all the owner's interest was concentrated on developing an extensive wholesale trade in hay, grain, and feed.

Mr. Stewart refuses to be stampeded into the belief that the hay trade is doomed, and Prairie hay, he asserts, is his "most profitable sideline."



J. W. STEWART

if any, as well as those sterling, making-his-way qualities, which we were all taught to salute by Horatio Alger.

J. W. Stewart's childhood and youth, we find, while containing many experiences thrilling at the moment, were in the main uneventful. The eventful part of his career was ordained, evidently, to begin after he had "settled down." This turned the usual order of things upside down, and perhaps accounts for Mr. Stewart's lack of interest in the gentle art of reminiscing. The unfolding of present and future developments in his business keep his eyes well to the front.

Three elevators, a chain of hay buying stations, and a feed mill are included in the properties of the J. W. Stewart Company.

About 200,000 bushels of grain, 50 to 60 cars of feed, 1,000 cars of hay beside the annual output of the new Stewart mill, are handled each year. This is the business which Mr. Stewart developed from an original capital of \$500 and a loan of the same amount. Railroadng had led J. W. Stewart through many states, and finally brought him to the Sooner State in 1902. About this time, certain of his friends gave him up as a likable, but hope-



OFFICE AND ELEVATOR NO. 1 OF THE J. W. STEWART COMPANY, CHELSEA, OKLA.

The company has acquired five hay buying stations, three of which are on the "Mo-Pac" rails, at Inola, Claremore, and Tallala. The other two are the "Katy" stations at Adair and Daws Switch. Cattle and Whiteoak are the Frisco stations of the company besides Chelsea. It is the policy of the company "to buy the meadows" whenever possible, and 50 per cent of Stewart's hay tonnage is cut, and cured, as well as handled by company agents. Hay of high quality, therefore, as well as great volume is being sent continually to the Stewart barns, and dealers in many states have learned that the Chelsea firm is a sure source of dependable grades.

Good use is made of the mailing list containing several hundred hay and grain dealers and buyers in Arkansas, Missouri, Texas, Iowa, and Minne-

was bought from F. M. Reed, by the J. W. Stewart Company. The frame of this building is very heavy and in excellent condition, although some work had to be done on the foundations. The machinery was old and worn out, and the power plant (an old gasoline engine) unsatisfactory. Electric power, therefore, a new cornmeal and chop mill, new separator, belts, screens, clutches, shafts, etc., were installed, and it is now a modern feed plant except for Alfalfa and molasses feed mixings. No flour is manufactured except the whole wheat product, the main line being Stewart's Quality Feeds. Since the mill was taken over, more than \$5,000 has been spent in modernizing it and more equipment is contemplated for it and for the firm's elevator at Inola, Okla.

Associated in the business with J. W. Stewart

is his son-in-law Frederick Calkins, formerly of Watertown, N. Y., and Mr. Stewart's younger daughter. Mr. Calkins, a graduate of Johns Hopkins, has transferred his allegiance from *materia medica* to business, and is in charge of much of the concern's newspaper and direct-by-mail advertising as well as the billing and rate department.

About four years ago, the co-operative marketing movement gave signs of development in Chelsea. A farmers' organization was formed, and it looked as if the J. W. Stewart Company might soon have a formidable competitor. The manner in which Mr. Stewart handled the situation is evidence enough of managerial skill. Instead of antagonizing the farmers by fighting them at every turn, he offered his assistance to them in starting their business. In short, he co-operated with the co-operatives. He offered them storage space in one of the Stewart elevators at the nominal charge

of five cents per bushel, which charge included cleaning and grading services. After one season of this, the co-operative group decided nothing was to be gained by competing with an independent business, efficiently and honestly run, and so dissolved the organization.

The co-operative idea cannot be said to be flourishing in Chelsea. Mr. Stewart owns a couple of 80's and a smaller tract of land himself, and is altogether familiar with the marketing problem of the grain and hay grower. The farmers know it and are letting well enough alone. Good grain and hay land, says Mr. Stewart can be had around Chelsea for as low as \$20 or \$30 per acre, and for those who are tired of high priced land, he recommends it as he does the town of Chelsea of which he is a loyal booster. To those who may wish to try out the grain land mentioned, he promises a profitable market.

Hints to the Elevator Millwright

"Big Bill" Davis Makes a Tractor Drive a Grain Elevator and Raise Gritty Water Without Using a Pump

By JAMES F. HOBART

"WHAT are yer doin' with that 'ere tractor? Goin' to haul Morris M. Marston, the Square Deal and Lake Massapoag up here? That would be fine and I could stand a couple days' fishin' in that lake right now, without half tryin'," said an elevator owner as he stopped his car near where William Davis, with the assistance of the driver, was coaxing a large tractor to load itself by its own power upon an auto truck over an incline built of railroad ties and planks.

"No, sir. Massapoag and everything in and around it are going to stay right where they are, for the present."

A TRACTOR POWER PLANT

"Say, Bill," replied the man in the auto, "I won't say a word if you will only tell me what kind of work a tractor can find to do in a grain elevator."

"A tractor can do about anything that is done in any elevator. I am going to make this tractor drive the entire elevator while the new steam plant is being set up and whipped into shape. Then, there's another job which this tractor must do. The water supply for the boilers and for all other purposes at the elevator is drawn from a driven well, which once used to flow, but in which at the present time the water stands about 28 feet below the surface. Furthermore, there is a whole lot of fine but very gritty sand which comes up with the water, and the very sharp grit simply cuts the pump to pieces in a very short time."

"Look a-here, Bill Davis, I can't dope out how the tractor can haul water out of a well without a pump, unless you drop a marine elevator leg into the well."

"That's a good way of doing it," replied Mr. Davis, "if the well were big enough to contain an elevator leg. But there is no room in an eight pipe for an elevator leg, so I am going to use an air-lift and make this tractor drive it along with the other machinery in the elevator. I will put a return bend on one end of a 1½-inch pipe and lower that end of the pipe into the eight-inch casing of the well. Then an air-compressor will be started and water will rise in the well pipe and flow over its top end, and if any sand comes up with the water, it can do no harm to any pump 'innards,' for there won't be any pump."

"Well, it surely is a simple affair, but how much compressed air will have to be furnished? It can't require very much power just to shoot some air down into a pipe full of water."

"It will require just as much power to raise water with the air-lift as with any kind of a pump with the difference that with the air-lift less power will be wasted in friction. Then, there are other conditions to be met. The air-pipe must be pushed down into the well, below the surface of the water standing at rest in the well, to a certain depth, which is called 'the submergence,' and this depth depends upon the height to which water is to be

raised above its normal level in the well. Another condition demands that the larger the well-pipe, the greater will be the amount of compressed air required, and the greater will be the volume of water lifted from the depths of the well to the surface of the ground."

"But, Mr. Davis, how does the thing work, anyway? How does plain air lift water out of the well, with no piston on a cylinder, to pull or push the water upward?"

"The well pipe acts as a cylinder and each bubble of air is a little piston, which is pushing upwards with all its contained power, which is considerable, the water immediately above that air bubble."

"Then it is the lighter air, bubbling up through the heavier water, that raises that liquid to the surface of the ground?"

"The matter may be understood in that way. The engineers have a way of arguing that the column of mixed air and water in the submergence depth of the well is made so light by the presence of a certain portion of intermingled air that the column of mixed air and water is actually pushed up the well-pipe by pressure of the atmosphere upon the surface of the water in the well, outside of the well-pipe. This could perhaps be better understood with a pipe in an open well, but the principle is the same, though perhaps a bit harder to understand, when the air-lift is placed in a driven well."

"How can the size of pipes and depth of submergence be found for any required lift and volume of water?"

"Almost any engineer's handbook will tell how to calculate the points you mention, as well as all other matters relating to the simple air-lift."

GRAIN SAVING

"Why don't you mount those chutes upon a sort of barn-door track, then you can spot a car anywhere within a couple of feet above the sink, and slide the chute right into place without having to pinch-bar the car back and forth and spot it within an inch?" said "Big Bill."

"Some day the shifter will pull out of here before anybody has 'unbuttoned' the hopper-spout from the car door and the chute will go bumping down the track. Just hang that hopper-chute or spout from a sort of 'barn-door' track, then you can slide the hopper into position and have it stay there without any fastening whatever."

"We won't lose a single kernel of grain now," said the elevator man. "Our chickens and doves clean up every kernel of grain, of any kind, which falls on the ground."

"I know that," said Big Bill. "These hens and doves get all the grain; nevertheless, they are not sanitary. They are underfoot everywhere."

"Now, all the elevator sweepings fall through a trap in the mill floor and the hogs take care of them. Although the sinks are well partitioned off,

this arrangement is far from sanitary. Why not put your hens and hogs in that field of yours, just across the road, and then put a good wire fence around it? Put a hopper and a blower under the trap-door where the sweepings now fall to the hogs and blow all sweepings over into the lot among the livestock."

CRANKY BELT SHIFTERS

Another time when Mr. Davis had been looking for trouble in the elevator and had found considerable, he was shown a belt shifter which they said was "cranky". Upon operating the shifter, he found that the belt would travel too far, or not far enough, upon the tight or loose pulley, as the case might be, and would bear heavily against one or the other of the shifter pins. Big Bill put the belt shifter through its paces and showed the owner that if the belt were shifted quickly and strongly, by heavy pull against the shifter handle, that the belt would be sent clear across the pulley and would bear strongly against the pin which checked further belt throw. On the other hand, were the shifter handle to be moved easily and gently, the belt would remain upon the near side of the pulley and bear hard against the shifter pin which had moved the belt into place.

The application of a tri-square to the faces of the shifting pulleys showed that they possessed very little, if any, "crown". Indeed, the pulleys were practically straight or flat faced. Big Bill explained that while the driving pulley of the shifting belt should always be flat-faced, the tight and loose pulleys should each have their faces crowned sufficiently to hold the belt fair upon the pulley whenever it was shifted. Mr. Davis then told of two ways out of the present trouble. One way was permanent and called for sending both shifting pulleys to a machine shop to have their faces properly crowned.

The other way, though not permanent, would probably last for months, possibly a year or two. This way was to build up the middle of the pulley by winding upon it strips of cloth or other material, which strips were to be held in place by tenacious wax, which was easily made by melting together a little machine oil and some common rosin. Mr. Davis showed them how to daub the inner sides of long strips of cloth and wind the strips around the pulley under the belt until a crown had been built up which held the belt in place and put an end to the crazy belt shifter business.

RUST-IMMUNE WHEAT FOR THIRTEEN STATES

The University of Minnesota has won another battle, it has been announced by Professor Andrew Boss, head of the agronomy department, in the development of a rust-resistant wheat. The benefit, however, will not be confined to Minnesota. It will be practically nationwide and possibly international in scope, and is expected to save millions of dollars for farmers in 13 northwestern and middle western states where the rust menace has been most virulent.

The new wheat, a cross between Marquis and Durum, has been named Marquillo. It is a little darker than Durum, its milling qualities are said to be equal to both strains, and it has inherited the rust-resistance and spore-repelling nature of the Marquis.

After a series of tests and experiments that have occupied plant breeders at University farm and at other agricultural experiment stations for years, the results obtained at the Minnesota institution warrant a rating of 95 per cent rust-resistant for Marquillo, Professor Boss claims.

WOMEN AND WHEAT

Women are again reminded of the fact that tradition has it that a woman was the one to introduce wheat in the western hemisphere. Mrs. Frank Barrows Freyer, formerly a resident of Nicaragua, but now living in Washington, speaking before the recent meeting of the Women's Universal Alliance in Washington, recalled the tradition that Donna

August 15, 1927

Maria Escobar brought eight pounds of wheat seed from Europe in the middle of the Sixteenth Century distributing from 20 to 40 grains each to numerous officials and natives throughout the Spanish domain in America.

MANCHURIA'S WHEAT CROP

By L. C. B.

In Manchuria wheat is grown largely, being second only to soy beans as the chief crop of the country. Both climate and soil are adapted to it. In fact, wheat sown in April matures six weeks earlier than that grown in the same latitude in the United States. Like all crops in Manchuria, it is planted in rows about one and a half feet apart. These rows of wheat are each year sown by hand in furrows that remain from the preceding year, and a plow is run along the sides to cover them. In most places the wheat is weeded, and occasionally it is even hoed.

After harvest the wheat is threshed by being passed under stone rollers pulled by donkeys led round and round by children. It is winnowed in the wind and then ground in rude native mills, or else sent to one of the half-dozen or so modern flour mills that have recently been erected in Manchuria.

During the World War, the wheat and flour industries increased to such an extent that by 1919 Manchuria was exporting wheat to Europe. Such exports, however, later fell off, and Manchuria has continued to import American flour. It also buys American wheat to mix with the native grain, as the American product is much harder.

SUPERHARD WHEAT TESTED

During the past season, report state wheat authorities at Manhattan, Kan., a considerable quantity of Blackhull wheat, known as "Superhard" was distributed for seed, but the final yields and milling tests show that it is not superior to ordinary Blackhull in any regard.

In Bulletin No. 241, in which this information is offered, the authors say: "Records of the United States Weather Bureau and of the Kansas State Board of Agriculture show conclusively that Kansas has enjoyed a period of unusually mild winters as measured by winter temperature and damage from winter killing. Since severe losses have occurred in the past it is reasonable to expect such losses in the future, and when they occur it seems certain that Blackhull growers will suffer more than those growing Turkey and similar varieties. Because of these facts Blackhull must be considered a dangerous variety for the northern, western, and especially the northwestern parts of Kansas." Blackhull tends to yield more than Turkey and Kanred where winter killing does not occur.

COULD HE APPEAL?

By M. L. HAYWARD

The salesman was pushing a new line and had sold the local grain merchant \$1,000 worth.

"Remember that we take a three months' note for the price of this stuff, without interest," the salesman pointed out, filled out a note form, and pushed it across the desk.

"What's the meaning of that clause that 'the maker hereby waives any and all rights of appeal in any suit brought on this note, or any renewals or renewal thereof'?" the merchant asked.

"Oh, that's simply printed in all our note forms; it means that if you were a poor customer, which you are not, and refused to pay this note, which you will not, and we sue you and get a judgment in court, you couldn't appeal to a higher court and keep us out of our money indefinitely," was the airy reply.

When the goods arrived, however, the merchant found that they were "not worth lugging home," as the freight agent expressed it; the seller refused to take the goods back, the merchant refused to pay his note, the seller sued, and got judgment.

"What's the next step?" the merchant asked.

"The judge who tried your case knows no more

than necessary about law, and some of his rulings on evidence would make a cowboy justice of the peace laugh," his lawyer assured him. "We'll appeal and win without a struggle."

"What about that clause in the note that I signed, saying that I waived my right of appeal?" the grain man queried.

"That's a new point, and we'll have to meet it on appeal," the attorney admitted, "but it's my positive opinion that no court will permit the maker of a note to sign away his legal rights in that way," and the Supreme Court of Idaho, in a case reported in 219 Pacific Reporter, 1058, ruled that the attorney was right, and the weight of authority is to the same effect, although some courts have ruled the other way.

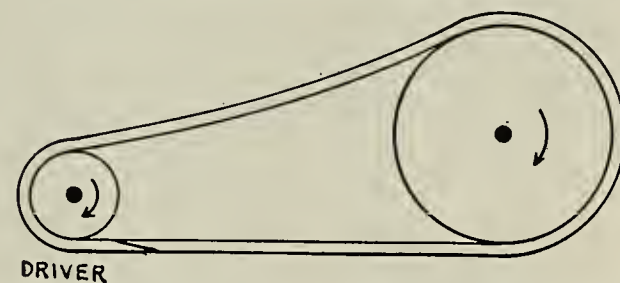
"The effect of such a stipulation is to oust the court of their jurisdiction and to restrict the parties from enforcing their rights under the contract made by the usual proceedings in the ordinary legal tribunals. There is some conflict of authority upon this subject in the reported cases, but we do not think, in view of the foregoing statute, that the question is open to discussion in this state," was the reasoning of the court.

IDLERS, BELTS AND PULLEYS

By W. F. SCHAPHORST, M. E.

Not long ago I read this in a prominent engineering journal: "This idler is near the driven pulley, which is contrary to the best engineering practice."

It is not poor engineering practice to place an idler pulley near the driven pulley when the driven



pulley is the smaller of the two. The best practice is to always place the idler close to the small pulleys, regardless of whether it is the driven or the driving pulley.

It is also stated that if a belt is run against the lap, the belt is liable to go to pieces if moisture is in the room. The direction of the lap is dependent more upon the direction of slip than it is upon the direction of motion of the belt. Since slip is usually greater on the smaller pulley than on the large pulley, and since slip is always toward the tight side, it is evident that in a drive such as shown in Fig. 4, herewith, with the small pulley as the driving pulley, the direction of the lap should be in the direction as indicated so that the joint will have as little tendency to roll or peel as possible. True, when the joint is on the large pulleys, the slip is in the opposite direction and there is a tendency to peel or roll, but the peeling tendency is less severe than on the smaller pulley. The direction of motion of the belt which was at one time regarded as the criterion is, therefore, of less importance than the question, "On which pulley is the belt liable to slip most?" The answer is, "Slip is always greater on the small pulley."

The same writer recommended facing pulleys with leather. I would discourage the use of leather covers unless absolutely necessary, because such covers are conducive of excessive wear. If a drive is properly designed, if the belts are wide enough, and if the pulleys are large enough, there is seldom any necessity for leather or canvas covers.

NEW ILLINOIS LAW

Governor Small of Illinois signed the new warehouse law, which was passed by the Illinois legislature, putting it on the statute books of the state as follows:

For an act to amend Section 3 and the title of "An Act to regulate public warehouses, and the warehousing and inspection of grain, and to give

effect to Article 13 of the constitution of this state," approved April 25, 1871, as amended, and to add thereto Section 6a, 6b and 6c.

Section 3. The proprietor, lessee or manager of any public warehouse of Class A shall be required, before transacting any business in such warehouse, to procure from the Illinois Commerce Commission, a license permitting such proprietor, lessee or manager to transact business as a public warehouseman under the laws of this state, which license shall be issued by said commission, upon a written application therefor, which shall set forth the location and name of such warehouse, and the individual name of each person interested as owner or principal in the management of the same; or, if the warehouse be owned or managed by a corporation, the names of the president, secretary and treasurer of such corporation shall be stated. In addition, the application shall state such facts as the Illinois Commerce Commission may require to enable the commission to determine whether such warehouseman proposes to operate in accordance with this act and the other warehouse laws of this state. The said license shall give authority to carry on and conduct the business of a public warehouse of Class A, in accordance with the laws of this state, and shall be revocable by the said commission, after full hearing upon satisfactory proof of any violation of law by such licensee, such proof to be taken in such manner as may be directed by and under rules to be established by said commission, but the action of such commission in granting or refusing licenses and in revoking licenses may be reviewed by the circuit court of the county where such elevator or warehouse is located.

The commission is also authorized to grant warehouse licenses to corporations which propose to operate Class A public grain warehouses on a flexible unit plan whereby empty bins in private elevators may be leased by such warehouse corporations and operated as public warehouses. Any and every application by such warehouse corporation for a warehouse license, and every license issued by the Illinois Commerce Commission to such corporation, shall describe the elevator or elevators wherein bins may be leased from time to time by such warehouse corporation, and such license shall authorize such warehouse corporation from time to time to lease and operate for public use, one or any number of bins in such elevator or elevators.

Sec. 6a. Every warehouse corporation operating on a flexible unit plan shall be required to file with the commission at the beginning of each week, a report showing what particular bins were operated for public use during the previous week. All transfers of grain to such public bins including direct transfers from private to public bins shall be made under the joint supervision of the employees of such warehouse corporation and the Department of Trade and Commerce. All such grain shall be inspected by a state grain inspector while in process of such transfer, and the warehouse receipt issued for such grain shall show the grade established by such inspection.

The capital stock of any such warehouse corporation may be owned by any other corporation whether organized for pecuniary profit or not for pecuniary profit, and whether organized under a general or special law of this state, provided such ownership is authorized by the board of directors of the corporation owning such stock; or such stock in such warehouse corporation may be held in trust for any other corporation or the stockholders or members thereof.

Sec. 6b. No rule or regulation of any board of trade or grain exchange which relates to the warehousing of grain in any public grain warehouse, or which relates to the custody of grain in any private warehouse, or the use or negotiation of custodian's receipts for such grain, shall be or become operative until such rule or regulation is approved by the Illinois Commerce Commission, and the Illinois Commerce Commission may adopt and promulgate reasonable rules and regulations consistent with the provisions of this Act for the purpose of making this Act effective.

Sec. 6c. No person who operates a Class A public grain warehouse in this state, shall store in such warehouse, any grain in which he has any direct or indirect interest. This section shall be deemed to prohibit such storage of grain owned by a substantial stockholder of the warehouseman, or grain owned by a corporation a substantial part of the capital stock of which is owned by the warehouseman, or grain owned by a corporation having substantially the same stockholders as the warehouseman, or grain sold to go to store, where the warehouseman, or a substantial stockholder of the warehouseman, or a corporation having substantially the same stockholders as the warehouseman, or a corporation affiliated with the warehouseman, agrees to repurchase the same or similar grain; and shall also be deemed to prohibit any other device or subterfuge whereby the warehouseman shall have or acquire any interest direct or indirect in the grain stored in any such warehouse operated by him. Any person who violates or participates in the violation of the provisions of this section, shall be deemed guilty of a misdemeanor, and shall be fined not exceeding \$5,000 or be imprisoned for not exceeding six months for each offense.

Elevator Builds Second Annex in Year

Addition to Elevator "B" of the Cleveland Grain & Milling Company at Beech Grove, Ind., Increases Capacity 832,000 Bushels

By HOWARD M. RUDEAUX

THE new addition to Elevator "B" of the Cleveland Grain & Milling Company, located at Beech Grove, Ind., has been completed. Twelve round tanks of structural steel and concrete 20 feet 4 inches in diameter, and 118 feet high, have been added, with a cupola 6 by 187 feet, equipped with Weller Conveyor and Tripper. The new tanks are joined to the working house by a bridge constructed of steel and galvanized iron from the cupola and a tunnel in the basement. The one conveyor feeds both rows of tanks including the 10 outside tanks and five inner tanks.

The storage capacity, including all tanks, is 832,200 bushels and is divided as follows: 12 circular tanks of 58,800 bushels capacity; 10 outside tanks, 5,490 bushels each; and five inner tanks of 14,340 bushels each. The bottoms of the tanks are concrete constructed with steel draw off. There are two 15-h.p. motors in the basement, one 10-h.p. motor on the bridge, and two 20-h.p. motors in the cupola, all of Fairbanks, Morse & Co. manufacture. All spouting is of Weller Metal Products Company manufacture; Goodrich Rubber Company supplied the belting, and conveyors are equipped with Stewarts Automatic take-ups, and driven by Morse Silent Chain Drive.

The new addition was constructed by James Stewart & Co., Inc., of Chicago, and concrete was poured in 12 days with 24-hour working force. The new addition will increase the capacity to 1,500,000 bushels. The new oats bleacher on the north side of

plied by the Huntley Manufacturing Company of Brocton, N. Y. The principal part of the machinery in the house was supplied by Sprout, Waldron & Co., Muncy, Pa. An automatic scale was provided on the platform on the first floor. The regular system in use is to bag out of the working house bins, the sacks going direct to the cars. Special bag sewing machines were installed.

The new house was also provided with a 1,000-bushel Ellis Drier with the new dust collecting system. There was a 10,000-bushel bin directly above this drier and another below so that the drier could run for 10 hours without using the leg. The spouting was secured from the Weller Manufacturing Company, of Chicago, Ill.

There were three 12,000-bushel legs, one of which

tures appear throughout the plant. Window space is utilized whenever and wherever available.

Steady operation is predicted for the Beech Grove unit, in spite of the below-normal showings which corn and wheat are making in the Hoosier State. A total corn harvest of 106,105 is forecasted, compared to last year's harvest of 170,528 bushels. Wheat condition is put at 89, against that of 90 for last year.

FRANCE TO AID WHEAT FARMERS

A scheme is to be soon forwarded in France for the encouragement of the farmer in all that concerns wheat culture, above all the proper selection of seed wheats (to the lack of which it is believed that generally unsatisfactory results of French crops have been largely due) and the rational use of fertilizers.

This scheme is being backed by M. Rabate, general inspector of agriculture, and delegates of the



ELLIS DRIER AT CLEVELAND ELEVATOR

the elevator recently completed is 28 by 28 by 119 feet, and is equipped throughout with Weller equipment. It is constructed of steel and concrete.

Less than a year ago an addition to this same plant was completed. The new buildings erected at that time included a new working house as well as new storage tanks. The working house measured 42 feet in width and is 58 feet in length. It is 185 feet high. The tanks have inside diameters of 20 feet 4 inches and are 83 feet high.

The total storage capacity of the then completed portion of the elevator was 268,000 bushels. One-hundred and seventeen thousand bushels of this storage were in the working house and the remaining 151,000 bushels were in the tanks. There were six cylindrical reinforced concrete tanks and four interspace tanks.

Two car unloading pits were provided, one on each track. One large Monitor Clipper was sup-

was a receiving leg and the others shipping legs. Each was equipped with a scale and a garner. Two 30-inch conveyors were arranged below the tanks and two other 30-inch conveyors above the tanks. An enclosed stairway goes all the way up in the building and it is fully protected against fire. To get into the shaft one must go through fire doors on each floor, so that each floor is cut off from all the others. There is a Humphrey Manlift for the employees' use.

A complete dust collecting system was installed. By enlarging the leg casings and increasing the power of the fans the builders did away with dust at the bottom of the legs and the scale floor has been kept clean. This added feature has proven very successful and has met with complete satisfaction.

It may be said of the completed house, including both the present addition and the previous one, that steel bin bottoms are used throughout. These have numerous advantages and are a familiar phase of engineering methods to most contemporary elevator operators and executives. Combining added efficiency with a reduction in cost of construction, they present a highly desirable feature. This type of bin bottom lends itself to reduction of the load on the foundation, and at the same time tends toward giving more room. This is no small factor in the plant efficiency.

Improved conditions in ventilation and lighting also result from the use of these bin bottoms. From an operating standpoint, the concrete and steel bin bottom has all the advantages of any other type, so that efficiency is maintained at the same time that economy is achieved.

The excellent ventilation and good lighting fea-



PLANT OF CLEVELAND GRAIN & MILLING COMPANY, BEECH GROVE, IND., SHOWING ADDITION

French Government to the International Wheat Conference at Rome, and was the result of the report rendered by him to the Academy of Agriculture at Paris.

CANADA REPRESENTED IN THE ARGENTINE

A resident representative has been appointed for Argentina for a selling agency of three western Canadian Wheat Pools. W. J. Jackman has been given this position and leaves Canada at an early date to take up headquarters in Buenos Aires early in September. Last year Mr. Jackman made a trip to South America to inquire into general conditions of the wheat trade in that country. It has been since decided by the wheat pools to be permanently represented there, intending to give it a thorough trial in expectation of the two countries coming into fairly close relations as producers and exporters of wheat.

BOTH the acreage planted and the total value of the important grain crops in Sweden were a little larger in 1926 than in 1925. The quantity of Winter wheat and rye harvested, however, was not so great as in the preceding year, due to the decrease in the yield per acre. The increases in value were due to slight advances in the market values.

WHILE Argentine exports of wheat for 1926 were not so large as for the preceding two years, exports of flour and corn were considerably larger, and exports of oats were heavier than those of last year.

Ohio Elevator Installs Improvements

Sark & Plum Elevator, Lilly Chapel, Ohio, Increases Efficiency by Adding a 300-Bushel Per Hour Grain Drier

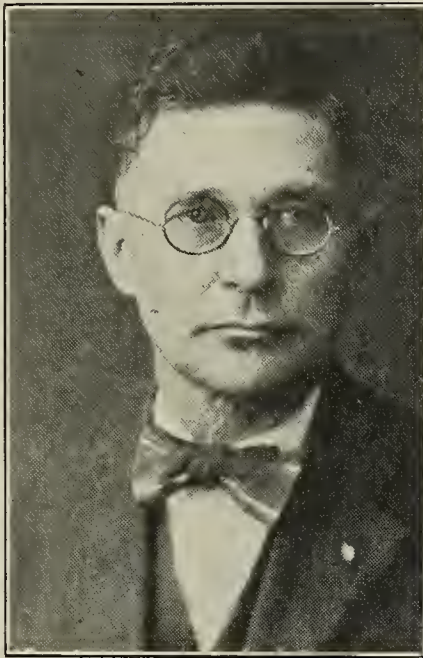
THE Sark & Plum Elevator, located at Lilly Chapel, Ohio, near London, is by no means a new enterprise, but the owners have been assiduously making changes and adding improvements so that today it presents a good example of an up-to-date grain storage plant. The latest addition, just completed and placed in operation was a Randolph Direct Heat Grain Drier, manufactured by the O. W. Randolph Company of Toledo, Ohio.

The elevator has had successive improvements as advances in the industry made them expedient and is today as complete as human intelligence can make it. The farmers' grain after it reaches the plant is given over to the modern machinery which, through a continuous operation either places it in a car on the track for shipment, or in one of the elevator's spacious bins for storage. The incoming load of corn first goes to the modern Fairbanks Scales, where the gross weight is automatically recorded in permanent form upon the grain ticket, after which the wagon or truck is driven to the dump under a covered driveway. After it reaches the unloading room, a new air dump empties the contents of the vehicle into the dump bin, from which a chain conveyor takes the grain to a large bucket elevator which carries it to the corn on the cob storage bin.

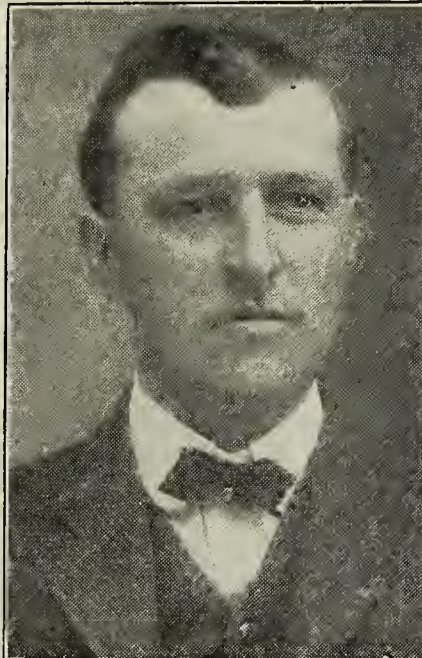
Here through gravity, it is fed into the sheller conveyor and taken to the sheller, which has a capacity of 400 bushels per hour. After it is shelled, the grain and cobs are carried up to the cleaner by another bucket elevator. In the cleaner the grain and cobs are separated. The cobs are conveyed to the incinerator chute, where they fall in the incinerator for burning. The grain is dropped from the cleaner into a bucket elevator which carries it to an auger conveyor which conveys it to the drier bin, which has a capacity of 300 bushels. Here it falls to the Randolph Direct Heat Drier, which has a capacity of 300 bushels per hour.

From the drier it passes into the cooler of the same capacity, and is then taken by an auger conveyor to the bucket elevator which conveys it to

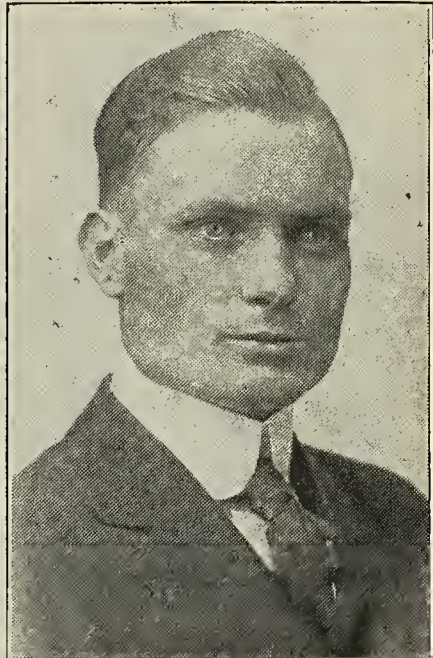
drier it will arrive at the terminal market in the same condition in which it left his elevator. This knowledge and experience enables him to know just what he is doing all the time and he feels safe in buying grain in poor condition at a price that will insure him a fair profit and at a very material advantage to the farmer. The new drier consists of three principal parts: A furnace, drier and cooler. The unique gases from the fire are mixed with fresh air in the back of the furnace so that the air is blown through the grain at about 80 per



J. H. SARK



W. H. PLUM



H. W. SARK

cent fresh air and 20 per cent flue gases. By an ingenious arrangement of thermostats the device can be adjusted so that a practically constant temperature can be maintained as well as an accurate control over mixture of air and gases from the fire.

The drier proper consists of a galvanized iron column through which the grain slowly passes

The first elevator on this site was erected in 1876. Charles and Alfred Pringle were the pioneers in this field, and these two brothers operated the plant until the early nineties, at which time they sold it to James Holloway and F. M. Wood. After a few months, Mr. Holloway sold his interest in the firm to F. M. Wood, who then proceeded to operate the plant alone for several years. At the end of this period, he sold the business to his brother, P. G. Wood, who in turn operated the enterprise until the advent of the Twentieth Century.

The business was then sold to Xerxes Farrar and F. M. Wood and they operated the plant for about 20 years under the firm name of Farrar & Wood. In 1919, after Mr. Wood's death, the concern was sold to Thomas and Ben Wood, of Lon-

don, Ohio. They continued operation for the brief period of one month and sold it in 1919 to the present owners, Sark & Plum.

Until this last change in ownership the man whose name was closely associated with the grain business in the Lilly Chapel vicinity was Daniel Kulp. For 20 years he managed the business in a very efficient manner for Farrar & Wood; and during this time he earned the esteem of his employers as well as the entire community. He remained with Sark & Plum until they were fully adjusted, and then moved to Canton, Ohio. Since Sark & Plum have managed the enterprise they have been fortunate in having men of exceptional ability to rely upon, among them being Samuel Horn, James Truitt, C. D. Fitzgerald and G. C. Morris. Messrs. Truitt and Morris are still trusted employees of the concern.

The elevator not only does an extensive business in grain, but also handles a profitable volume of coal and lumber.

GRAIN EXPORTS UP

Exports of grains and grain products from the United States during the fiscal year ended June 30 last had a total value of \$404,166,000, an increase of \$141,270,000, or 34.9 per cent, over the preceding year, and comprised 8.2 per cent of our total exports, according to an analysis made by the foodstuffs division of the Department of Commerce.

Shipments of wheat and wheat flour, amounting to \$217,957,000, comprised about 75 per cent of the total grain exports, both items showing large increases in both quantity and value over the preceding year. The largest increase of any single item was in the export of rice, which was nearly 10 times as great as in the fiscal year 1926.

Exports during the year included 93,000,000 bushels of wheat, an increase of 147.6 per cent over 1926; 8,100,000 bushels of rye, an increase of 64.8 per cent; 212,500,000 pounds of rice, an increase of 770.1 per cent.



SARK & PLUM ELEVATOR, LILLY CHAPEL, OHIO

the automatic scales. After the grain is weighed it is taken by another bucket conveyor to either a storage bin or a car on the track, according to the option of the manager.

A drier, such as this elevator has, brings about a very different condition as far as the farmer is concerned. The elevator man determines by test from the farmer's sample, how much moisture the grain contains, his eyes and nose tell him about what condition it is in and he can decide very accurately how it will grade when dried. He knows that after the grain has been through the

down, the heat being blown through the grain constantly. The sulphur fumes and carbon dioxide from the fire have a sweetening effect on the grain which largely, if not entirely, removes the odors caused by smut, must or other infections.

From the drier the grain passes down through a similar grain column called a cooler in which fresh cool air is being constantly blown, further sweetening the grain. As the grain passes down through the drier and the cooler, it is constantly rolling and turning, which has a considerable polishing effect on it, further improving its grade.



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We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, ILL., AUGUST 15, 1927

THE MENACE PERENNIAL

ASIDE from the threat of rust, the most important black cloud on the grain man's horizon at present is the "farm aid" propaganda being generated for explosion in this winter's Congress. Just now the cloud is no bigger than a man's (Coolidge's) hand, but it looms larger each month.

Scarcely had President Coolidge put on his cowboy suit, when from Rapid City, S. D., reports came that a "comprehensive farm relief program" had been submitted to the chief executive by "prominent administration men of the West." It avoids the equalization fee, yet involves a \$300,000,000 appropriation for the encouragement of grain co-operatives and other projects. There will be time enough to worry about it and to oppose it when the bill is drafted, but even now it bears study and watching.

The final success or failure of whatever farm relief measure is offered will hinge on the president who must sign or veto. Just as there have been developed rust-resistant wheats something-ought-to-be-done about establishing a variety of presidents which would be immune from McNary-Haugenism.

OUR EXPORTS AND INDIA'S

EXPORTS of wheat from India are potentially important because they arrive on the international market in the early summer when stocks are theoretically depleted in other exporting countries. Since the World War, annual exports have exceeded 40,000,000 bushels only once and the average net ex-

port has been only 13,000,000. Hence the Indian contribution to the world's wheat market is in most years relatively unimportant, and assumes major significance only in years when the Indian crop is large. According to a publication just published by the Food Research Institute of Stanford University, California, the prospect is that India will remain a minor and erratic contributor to the world wheat trade for many years to come.

American exports, on the other hand, show great vitality and a gain of 43.6 per cent in the value of domestic exports of principal grains and grain products for the six months ending June 30, as compared with the corresponding period of 1926, is shown in figures made public by the Department of Commerce.

Striking gains in value were shown by several export grains in the first quarter of 1927, as compared to the year before. The gain for wheat value was 104.7 per cent; for rice, 628.8 per cent. And the barley percentage is not to be overlooked with its high record of 164.4.

BETTER GRAIN—BETTER PRICES

EVERY progressive dealer should have a good cleaning machine in his warehouse for two reasons almost too obvious to emphasize. A dealer, though, as everyone else, is likely to overlook the obvious. The re-cleaning of seed stocks for customers can be developed into a profitable sideline and this fact is the first advantage of owning modern seed cleaning equipment.

The major advantage is an indirect one. Very few grain and seed dealers in the smaller towns realize the important position they hold in the production of good or bad crops. It is to the interest of every dealer, certainly, to go as far as he can in providing facilities for the selection of good seed in order that desirable grades will be made available for coming harvests. Better grades make marketing easier and results in a rapid clearance of elevator stocks. The markets never are glutted with high quality grain grown from quality seed.

UNSENSATIONAL

THE Government crop of last week, did little more than substantiate the opinions previously expressed by free lance forecasters. On corn, for example, the Federal estimate of 2,385,000,000 bushels was only 5,000,000 in excess of the average for five guesses from independent sources the first week in August.

The official estimate of 293,000,000 for Spring wheat was construed as slightly bullish as a 300,000,000 figure was expected. The oats forecast of 1,279,000,000 bushels also was bullish material, but the market as a whole had already reacted to the conditions published on the tenth.

There is, however, a phenomenon presented in the current corn market. Public interest is a negligible factor, and the apathy seems strange when it is remembered that on several occasions which offered much less tempting outlooks for future gambles, the public has

jumped in heavily. But it has gone in for wheat as a general rule. Corn never seems to have outside support. To the public grain means wheat. Corn is a vague puzzle and not to be touched except on the cob. With wheat in a position equivalent to that of corn today, there would be a buying scramble of cigar store clerks, widows, mattress makers and the proverbial office boys, that would keep the wires hot for several days.

GRAIN AND COFFEE REBATES

IF YOU own a grain elevator and do some elevating and storing for a railroad company, you may not pay back any of the money you receive from the railroad to the shipper in order to increase the amount of business for the railroads and yourself, unless you have a liking for expensive court trials.

If you work as a distributor for a coffee roasting company, you must rebate in an effort to increase your business at the expense of your competitors or be accused of an offense punishable by a jail term. Everybody must pay the same amount of money for railroad service of like kind. Yet if anyone tries to force everybody to pay the same price for the same kind and quantity of coffee, that individual is haled before the Federal Trade Commission and told to stop it on pain of the law's penalty. In law there is a vast, if illogical difference made between grain and coffee rebates. The railroad company must exact the same amount "from every Tom, Dick, and Harry" as *Traffic World* puts it, for a particular service. But when the coffee roaster tries to make everybody pay the same for a pound of coffee, there is just about as much trouble for him as there is for the railroad that fails to do that very thing.

The Spencer-Kellogg elevation rebate case, recently decided in the United States Court of Appeals, and the case of the Federal Trade Commission against the Dwinell-Wright Company, of Boston, decided almost simultaneously, bring out the strange contrast in the thought of legal minds in regard to the ethics which should be observed in the two sorts of business. The elevator company is to be punished for promoting its business by cutting prices. The coffee roasting concern is on its way to Coventry for trying to prevent price cutting.

Mr. Sapiro's prestige has been strengthened in many quarters since he won his tilt with Henry Ford. His tenets of faith in regard to race problems, though, are more sound than his ideas on co-operative marketing. In an interview at Winnipeg, Mr. Sapiro has given an "absolute denial" that he ever made the proposal of compulsory co-operative marketing, but only of compulsory selling and buying through the co-operatives. If there is any difference at all between these proposals, the latter is the more objectionable. Mr. Sapiro would not, by law, make every farmer a member of the Pool with a share in the advantage, if any, of such membership, but would force every farmer to sell to the Pool without competition.

EDITORIAL
MENTION

Why not call the Department of Agriculture the Department of Co-operative Marketing?

Fire Prevention Week will be observed nationally when the annual convention of the Grain Dealers National takes place. No smoking in Omaha, October 10 to 12.

A total of 16 wheat pools have been organized in the United States since 1920, but by 1925 only nine of these were active. Roll your own conclusion.

In a season when many states are chalking up wheat crop declines, the Old Line State has the distinction of an average harvest. Maryland dealers report a general yield of 22½ bushels to the acre.

The first slight touch of chilly fall weather will drive any rats lurking in the foundations or out-buildings into the elevator proper. The old standbys, traps and poison, should be put on sentry duty early this year.

Polish taxpayers are about to buy 1,700,000 dollars' worth of grain elevators. As at least one of the three houses contemplated will greatly facilitate trade with Czechoslovakia, the investment is significant

The first cargo of new wheat out of Galveston last month went to Greece. The foreign trade developed with that nation, although small compared to that developed with other countries, would have been the envy of the ancient Phoenecians.

A 100-mile swath, north and south, through Nebraska last year was practically barren of grain harvest. Consequently, the 100 per cent increase in wheat volume and the good corn crop of this season gives the grain growers, dealers, and bankers great elation.

Purkoff wheat has been put in the rogue's gallery by a large Indiana mill. This is a cue, we suppose, for a chorus of protest from the growers, yet from the analysis at hand, it is quite certain that the farmers who sell this wheat would refuse to accept flour made from it.

A farmer near Dallas, who has been getting from 30 to 40 bushels of oats to the acre, decided to change his seed stock. He bought first class recleaned seed and at once achieved a yield of 80 bushels to the acre. Add this to your data on the subject of country-run *versus* recleaned seed.

There are at present only four voluntary wheat pools in Australia. So much is heard of the Australian pools, and so little of the privately conducted marketing, that the impression of a ubiquitous and omnipotent pooling system on that continent is developing. As a matter of fact, the average portion of

marketable wheat handled by each of the four pools is but 30 per cent in South Australia; 50 per cent in Western Australia; 31 per cent in New South Wales, and 54 per cent in Victoria.

An Oklahoma farmer says that at a cost of four cents per acre, he treated his seed wheat, thereby gaining \$888 from his 300-acre tract when the crop was sold. The trouble with average farmers in this connection is that their fathers never used copper carbonate and by crackey they don't need to neither.

Kansas citizens are not talking so much of growing the best-wheat-in-the-world this year as they are of their record corn crop. The 10-year average condition for Kansas corn on August 1 has been 68 per cent. This August it is 85 per cent. A barley crop twice as large as last year's also is viewed with pride.

In a year's time the Detroit River floats five times the tonnage that goes through the Panama Canal. There is a vessel, a whale-back, or a 500,000-bushel wheat ship passing between Windsor and the Automobile City on the average of one every 16 minutes, during the 250 days in the open navigation year.

Ontario is to inaugurate a grain pool under the direction of the United Farmers Co-operative Company, Ltd. The marketing will be handled on a "no-profit" basis. If the no-profit principle of the pool finally applies to the farmers as well as the operating company, the instance will not be without precedent.

In an exhaustive treatise on fall-sown oats in the South, the Department of Agriculture tells how southerners may increase their oat yields. A work should now be published explaining to northerners how to market their oats in the old southern and southeastern markets in competition with the 5,000,000-acre harvest of the Confederacy.

Mung bean seed now is in demand in certain districts of the United States, as several factories are canning mung sprouts. For whatever additional business this may mean to the bean elevators and seed dealers, we have the Chinese brethren to thank, as they introduced the Oriental bean to Americans in *chow mein* and other popular Chinese restaurant dishes.

No less a personage than Senator Frush from no less a town than Wahoo, Neb., made a pilgrimage to his state capital July 26, to tell on the Omaha Grain Exchange which, he declares is not obeying the Osterman grain weighing and grading law. "Interesting if true" was the only response, it is reported, that the crusader could wring from the state authorities.

It is a coincidence that the thorough study of heat-damaged wheat is offered by the Department of Agriculture at the same time that millers are considering the reports of heat-benefited flour. An English chemist offers proof that flour treated by artificial heat, or

flour from wheat harvested in hot weather has superior baking qualities. A little heat goes a long way though, and bin-burned or skin burned wheat, even when present in a car in as low a proportion as 1 per cent or less, lowers the value of the whole consignment. It also lowers the price if the buyer knows his heat-damage.

In connection with the seemingly authentic reports of the electrocution of wheat in Kansas, it is of interest to note that farmers in Sweden now are producing some crops successfully in soil heated by electricity. In the latter case, the electricity was of the harnessed variety, however, and not the untamed lightning responsible for the killing of the Kansas wheat.

The first of this month about \$27,000,000 was dispersed to members of the Canadian pool as the final payment on the sale of 1926 wheat, and announcement made of the plan to operate 60 instead of 30 elevators by the Manitoba pool. This news will not cheer wheat buyers abroad, who have been denouncing, with fervor, the pool's sales policy the past season.

A crow-proof rice is the newest development which the eminent Louisiana rice breeder, "Sol" Wright, now claims to have made. It is one of his choicest varieties upon which he has grown a short, sharp barb. Wright declares that neither the rice bird nor the crow will attack this variety because the barb sticks the membrane inside his bill. This will be all right if it can be kept from the Society For the Prevention of Cruelty to Animals.

At the same time that a Colorado state official is launching a campaign to bring 60 per cent of the state's Hard Winter wheat producing area under co-operative marketing control, Denver interests are starting a smut-eradication movement. Farmers would do well to make the latter campaign their primary interest for the present. The marketing of sound wheat is a less complex problem than selling smutty grades.

Employees of western jute mills may have to seek work in elevator construction programs or in other lines if the Government keeps on promoting the bulk grain storage and handling idea at the expense of sack handling. Pounding away on the fact that it costs but two to five cents per 100 pounds to handle grain in bulk, as compared to 15 and 25 cents for the sack method, the Federal agents are making an inevitable headway.

Only 40 per cent of the rail rate will be the barge rate for wheat from the head of navigation to the Gulf, announces the Inland Waterway Corporation. The rail tariff from Minneapolis to New Orleans is 36.5 cents, as against 14.8 cents by barge. A saving, therefore, of over \$13,000 can be made on every six-barge cargo of wheat from the Twin Cities to the Louisiana port. Grain trading may have its bad spots, but how would you like to be in the railroad business?

GEORGE E. BOOTH
Chicago

NEWS OF THE TERMINAL MARKETS

JOHN D. MULLALLY
St. Louis

E. A. PIERCE & CO. EXPANDS

On July 18 E. A. Pierce & Co. of New York took over the firm of Dean-Onativia & Co. of Chicago and will operate the offices of the latter firm in Chicago, Washington and Plainfield, N. J.

The partners and staffs of Dean, Onativia & Co. will become associated with E. A. Pierce & Co. The present offices of Dean-Onativia will be retained. The partners in Dean-Onativia include: J. Clarke Dean, E. F. Rosenbaum, J. Victor Onativia, Jr., Benjamin R. Cahn, Harold E. Wiley, Joseph Rosenbaum, John D. Cady and Ira Eugene Westheimer. The partners in E. A. Pierce & Co. are Edward A. Pierce, Edward L. Burrill, J. H. Goadby Mills, M. Eyre Pinkard, Simon J. Schlenker, Arthur L. Kerrigan, Latham R. Reed, Robert Cassels, A. B. Gwathmey, Jr., William Mitchell, Edward E. Bartlett, Jr., Edward Kinnecone, Sidney J. White, J. C. Cuppia, Joseph H. Himes, Clarence J. Housman and Frederick Houseman.

NEW ELEVATOR FIRM AT CHICAGO

The Chicago Elevator Properties, Inc., is a new firm organized to manage the elevators taken over from the Armour Grain Company by the Rosenbaum Grain Corporation. The new company will be a subsidiary of the Rosenbaum concern but will be under its own management and will own in fee the properties operated, seven in all, in addition to two under lease, and with a combined capacity of 17,000,000 bushels.

First mortgage bonds of \$2,500,000 bearing 6 per cent and maturing in 1942 are being offered to finance the company. P. W. Chapman & Co., and Colvin & Co., are handling the issue, selling at 99 and yielding 6.10 per cent.

The bonds are secured by a direct first mortgage on all of the fixed properties owned by the company, which have been appraised at a valuation of over \$6,000,000.

Ford, Bacon & Davis, Inc., estimate the annual net earnings to be derived from the operation of the properties owned in fee to be not less than \$400,000 available for interest, depreciation and Federal income taxes. They further estimate the annual net earnings from all owned in fee and leased properties to be not less than \$750,000 available for interest, depreciation and Federal income taxes.

The properties will be operated as public grain storage warehouses and will be under the regulation and jurisdiction of the Illinois Commerce Commission.

The rates which the company may charge for service and storage space are regulated by the Illinois Commerce Commission and the company functions as a public custodian under the rules and regulations of the Chicago Board of Trade.

CINCINNATI DEALERS CONFIDENT OF FUTURE

On June 21 the name of the Cincinnati Grain & Hay Exchange was formally changed to the Cincinnati Board of Trade. With the broadening of its functions and the enlargement and improvement of its quarters in the Board of Trade Building at Third and Walnut Streets, members are confident that the future holds much of promise for the market.

Hay has always been a feature of the market's receipts at Cincinnati. The market is putting up a strong fight for the adjustment of freight rates into the Southeast to equalize the rates on eastern and Canadian hay into that territory, and if that effort is successful the hay trade will benefit con-

siderably. An effort is also being made to develop the market at a Soft wheat center and considerable energy is being expended toward this end. There is more optimism prevailing than has been present for some time, and the Cincinnati Board of Trade will be heard from.

NEW ST. LOUIS TRAFFIC DIRECTOR

Edward P. Costello has been appointed traffic commissioner on the St. Louis Merchants Exchange to take the place left vacant by the resignation of Charles Rippin on August 1. Mr. Costello has been in the traffic department of the Exchange for 10 years, during which time he made intensive studies of the grain rate structure. He recently attended a hearing at Wichita, Kan., before the Interstate Commerce Commission. The Board of Directors feels that it has chosen the right man for the im-



EDWARD P. COSTELLO

portant position of directing the traffic affairs of the Exchange.

Mr. Costello was for several years with the Memphis Freight Bureau and prior to that was in the accounting and traffic department of the Missouri Pacific Railroad.

ESTIMATES

R. O. Cromwell of Lamson Bros. & Co., Chicago, estimates this year's production of corn at 2,392,000,000 bushels; Winter wheat, 558,000,000 bushels; Spring wheat, 288,444,000 bushels; oats, 1,335,000,000 bushels; and rye, 63,000,000 bushels.

Nat. C. Murray of Clement, Curtis & Co., Chicago, for this year estimates corn at 2,364,000,000 bushels; Winter wheat, 562,000,000 bushels; Spring wheat, 300,000,000 bushels; oats, 1,338,000,000 bushels; rye 63,200,000. All of his estimates are slightly higher, but fairly in accord with Mr. Cromwell's. An average of the two probably would not be far off.

In addition Mr. Murray has the following in regard to World wheat prospects: "The wheat crop of the northern hemisphere this year will be about 100 million bushels more than last year according to conditions about August 1. The wonderful improvement during July of Canadian wheat gives it a prospect of a crop 20 million bushels larger than last year's production; and the improvement of our spring wheat gives us a prospect of total production 30 million bushels larger than last year. European prospects are for 50 to 60 million more than last year. North African total is not materially

changed. In the Southern Hemisphere the acreage will be larger than expected a month ago, and only slightly less than last year. It is too early to say anything about production, but the last crop in both Argentina and Australia was large, and exports from those countries between July 1 and next December 31, will probably be 20 to 25 million bushels more than in corresponding period last year."

MR. TAYLOR REGISTERS MODESTY

This department last month carried a story about the experience of Frank J. Taylor of Omaha in the circus business. The story was taken from the Salt Lake City *Tribune*, due credit being given and the introductory paragraph mentioned Mr. Taylor as a "grain magnate", the term also being quoted.

Mr. Taylor in a letter of August 6, disclaims being a "magnate." Here is the letter:

Editor American Grain Trade:

"Note carefully an item in your paper in regard to my experiences in the circus business. Seems the longer this goes, the more sensational it gets. The truth of the matter is, the writer is not a 'grain magnate' but simply has been running a grain commission business in Omaha for the past 18 years.

"Of course, I know there are sometimes errors made by newspaper correspondents, as well as all of us, and the writer overlooked them for some time, but when it gets back to his friends in the grain business, believe that part of the story should be corrected.

"I only wish I was a 'grain magnate,' and if I was, I would not be working from 7:45 a. m. until 6 o'clock at night in my office.

"Sincerely yours, FRANK J. TAYLOR."

We apologize for the embarrassment we may have caused Mr. Taylor and only wish that the appellation attributed to him may be a prophecy.

FROM CENTRAL ILLINOIS

Favorable threshing weather for the past few days is making quick work of our short wheat crop. Some stations are already finished while others will require next week to complete this work. As we get farther along there is no change in our previous announcement of poor yields and a large percentage of smutty wheat. Some buyers awaiting a movement of wheat from Illinois will find a large percentage of it already in market or on the way.

During this week corn has made about the progress one would expect it to make with temperatures from 50 to 60 degrees most nights. Undoubtedly the corn is growing and making progress, but not more than 20 per cent is in tassel. In some sections this percentage even may prove somewhat too high. About 25 per cent of the crop is at least 30 days late and has had very little opportunity to make up this lateness.

Threshing has almost stopped the movement of corn and there is an urgent demand for any that can be loaded immediately. All indications point to a larger movement after harvest is out of the way even though prospects for the growing crop are not brilliant.

Some oats being threshed in most all sections and returns indicate the same spotted condition as in wheat. The early oats have been threshing out well and showing good test weight, but we have too large a part of the crop that are late sown and will be low in yield and test; quite a few will not be threshed. Yields have been running from 10 to 50 bushels with test weight from 21 to 35 pounds

August 15, 1927

so it is difficult to make an intelligent estimate of the production. Some new oats being shipped and a fair percentage of No. 2 grades being received.—*Letter of August 6 from H. I. Baldwin & Co., Decatur, Ill.*

BALTIMORE AMENDS BY-LAWS

Members of the Baltimore Chamber of Commerce at a meeting on July 11 voted on the following amendment to Section 1 of its by-laws: "Any male person 21 years of age or over, and approved by the Board of Directors may be admitted to membership in this Chamber upon payment of such initiation fee as may be fixed, from time to time, by the Board of Directors; or on the presentation of an unimpaired certificate of membership duly transferred, and by signing an agreement to be governed by the rules, regulations and by-laws, and by all amendments and additions that may be made thereto. In like manner, and upon the same conditions, any corporation, by its accredited representative, may become a member, and the certificate of membership shall stand in the name of such representative."

MOVEMENT LIGHT IN PEORIA

Wheat: New wheat is being moved rather slowly in this territory and the yields are rather disappointing, running from five to 25 bushels per acre, mostly under 20. Some of the wheat is coming in in very good shape, although considerable of it is coming in smutty which naturally reduces the price. As our wheat acreage was small and the yields now are disappointing, it makes the country feel rather strong on wheat and they are holding considerable of the best, and it looks as though their ideas for higher prices will be realized. Prices in this market on new wheat have compared favorably with other markets, and all the wheat coming into the market has been well taken care of.

Corn: Movement has been light the past few weeks on account of the farmers being busy cutting and threshing grain, although the last few days offerings and bookings to this market have been fairly liberal. Our prices have ranged well above other markets for quite a while, and this market is especially attractive for the poorer grades of corn, bringing more money here than anywhere.

The growing crop is coming along very nicely, although it is rather spotted, corn ranging anywhere from three feet high to seven or eight feet high. Some of it in the tassel and shooting ears, and some of it will hardly be another week before it will be in the tassel.

Weather lately with a few exceptions has been favorable for the growing corn, and it has been making excellent progress. It is hard to tell much about what corn is going to do until the month of August is out of the way, as the better part of the growth and finishing comes in the latter part of August, September, and early October.

Should the frost hold off as it did two years ago until about the middle of October, we might raise as much corn as we raised last year. We note the Government report today raises their July estimate about 100,000 or over. Stocks of old corn in farmers' hands from all the information we can gather, are fairly heavy, in some cases as low as 30 per cent and in numerous cases as high as 60 per cent, and wherever the crop looks good, as soon as the threshing of small grains is over, there will no doubt be a good movement of corn, and as the demand for this cereal is mostly of an industrial character, it looks to us as though stocks in terminal markets will again increase.

Oats: Movement of new oats has not at all been heavy as farmers are not inclined to sell, as the yields of oats in this state are running light, in some cases as low as 15 bushels to the acre. The highest we have heard is 55 bushels, but the most numerous reports run from 25 to 40, which is considerably less than was expected. The early oats are yielding the best. The late oats are making the light yields.

We note the Government report today reduces

their estimate about 74,000,000 and we believe that the next Government report issued will cut down considerably more. The arrivals of new oats are being well taken and are bringing better prices in this market than any other market.—*Mueller Grain Company, Peoria, Ill., in letter of August 10.*

ACKNOWLEDGING REAL SERVICE

No honor is more gratifying than the recognition of work well done. When such acknowledgment comes from business associates who can measure accurately the quantity and quality of that work it is the more pleasing.

Leverich W. Forbell, cash grain broker of New York, had that experience on July 20, when the Board of Managers of the New York Produce Exchange presented him with a gold watch, chain and pocket knife, in recognition of the faithful and effective service he has performed as a member of that Board for the past 12 years.

The presentation was made by President Elliott T. Barrows, in a graceful speech which touched the recipient deeply. Mr. Forbell has a wealth of friends which he has made, not only in New York, but throughout the country. He is associated in the minds of all with a gentle courtesy and a kindly consideration, the result, not of studied effort or superficial cultivation, but of a genial friendliness of spirit which has endeared him to every friend in the trade.

Mr. Forbell started as a boy with Story, Ward & Comstock, which later became W. H. Story & Co.



LEVERICH W. FORBELL

He joined the Produce Exchange in 1882 and the following year started in business for himself, the firm being known for years as F. W. Forbell & Co.

He has worked hard with and for the Exchange, with only his sense of loyalty to spur him on. No committee work nor assignment of special tasks have been neglected and no reward was asked. The Board's acknowledgement of all he has done came as a surprise to Mr. Forbell, and it must have been a gratifying surprise.

CORN AND OATS IN DEMAND AT PITTSBURGH

Receipts of corn in our market have been fair, and fresh arrivals have been kept well cleaned up. Corn is grading better now than it was three weeks ago. Very few cars of musty or heating corn arriving. Occasionally some cars will show slight signs of heat, but the discounts on this class of corn have not been excessive. Elevator stocks here have gradually declined and are now of small proportion.

Mixed corn does not seem to be wanted, even at large discounts. All grades of Yellow corn under No. 3 Yellow are moving off at discounts that are based on the merits of the corn and can advise that No. 4, 5 and 6 corn can be shipped here, and will sell at very reasonable discounts.

The oats situation here is just fair. Elevator stocks of old oats are less than they were, but are of fair size for this season of the year. Some new oats are arriving and grading No. 3 White. The test weight so far is running 30 to 31 pounds. None of these oats arriving are out of condition, and values here are well in line with other mar-

kets and commanding a premium right now over track bids from any source.

Most all of the trade are glad that the old oats are soon to become a thing of the past, as they sure were a trouble maker to all concerned. With the better quality of the new crop we expect that the trade will prefer the new to the old.

Our market here is receiving all the wheat that it can take care of from nearby points in Pennsylvania and we could not recommend consignments of wheat to this market from western states. This condition will exist for some time.

We would say as a general thing the demand for corn and oats is of a better nature than it has been for the past year. This is no doubt due to the fact that interior points are now depending on the western shipments more than they have been as local stocks of corn and oats are exhausted.—*Harper Grain Company, Pittsburgh, Pa., in recent news letter.*

GOOD SOFT WHEAT CROP NEAR CINCINNATI

Local elevators have been busy day and night for about three weeks on wheat. Quality of the local crop is excellent and we believe we have the finest Soft wheat that was grown on the crop right here within a radius of 75 miles north, east and west of Cincinnati. The big bulk of the rush movement is passed and we look for rapidly decreasing receipts. Most of the wheat was sold direct from the thresher and we think only a small per cent is being held in farmers' hands and very little in country elevators. Local elevator stocks are comparatively large.

Receipts of corn have been inadequate to care for local industries. The few arrivals will bring almost any price asked. Local oats stocks are light; new oats just starting to come in. Grades running from No. 2 to Sample, but on the average, believe the quality of this crop to be far superior to that of last year. All oats are meeting with ready sale at present price levels. They look too low to us if the price of corn is right.—*The Early & Daniel Company, Cincinnati, Ohio.*

VOLUME OF GRAIN FUTURE TRADING IN JULY

Trading in grain futures on the Chicago Board of Trade in July fell off materially from the high figures registered in the preceding month. The total for all grains, according to the figures released by the Grain Futures Administration, was 1,515,085,000 bushels, as against 2,045,634,000 bushels in June. The July total was divided among the different grains as follows, for the purpose of comparison the June figures for each grain being given in parentheses: Wheat, 862,988,000 bushels (1,001,122,000); corn, 540,516,000 bushels (863,280,000); oats, 80,836,000 bushels (140,396,000); rye 30,745,000 bushels (40,836,000).

The average open contracts for July, "short" side of contracts only, there being an equal volume open on the "short" side, were: Wheat, 79,704,000 bushels, as against 87,023,000 in July of last year and 74,075,000 last month; corn, 78,319,000 bushels, compared with 52,196,000 last year and 76,816,000 in June; oats, 27,803,000 bushels, as against 31,397,000 last year and 32,549,000 in June; rye, 10,544,000 bushels, compared with 12,393,000 in July 1926 and 10,145,000 in June of this year.

SEES IMPROVEMENT IN CORN

The wheat harvesting is about over and farmers have sold freely. There has been heavy smut on the wheat through this section which has all been sold. We do not believe there is as much wheat on the farms this year to be held over as there was last year. The small mills seem to be filled up for the present and demand not so good from this source. Terminal markets are the best buyers for wheat to go to store.

Oats threshing is progressing and yields are very disappointing. They run from 10 to 20 bushels less than last year and less than the amount of straw would indicate. Test weight runs from 26 pounds to 32 pounds, probably average around 28 pounds to 30 pounds. Farmers are buying these

of their neighbors for feed and the movement is very light. Believe it will be necessary to ship in oats to the central part of the state for feeding purposes.

The corn crop shows some improvement but about four weeks late. Almost impossible to make a guess but cannot feel that we will have a half crop of merchantable corn. Demand has let up for cash corn on account of the high prices and stock will have to advance in price before they can be profitably fed. If corn gets too high substitutes will probably be used when possible. There is an over abundance of hay and it is selling at almost nothing.—*Crabbs Reynolds Taylor Company, Crawfordsville, Ind., letter of August 11.*

SHIPPERS AND CARRIERS DISAGREE

When grain shippers and railroad representatives met at Chicago on August 9, to agree upon a basis of adjustment in weights for shipments of grain, there were few who had hope of any success. They appear as far apart as ever. The carriers submitted the following:

No correction will be made if outturn weights are within the following number of pounds of the billed weight for the assessment of freight charges.

60,000 to but not including 70,000.....	180 lbs.
70,000 to but not including 80,000.....	210 lbs.
80,000 to but not including 100,000.....	240 lbs.
100,000 and over.....	300 lbs.

This was not acceptable to the shippers. Years ago it was determined that $\frac{1}{8}$ of 1 per cent was a liberal average for wheat shrinkage in transit with a somewhat higher average for the coarse grains. But the railroads have studiously ignored the long series of tests on which these figures were based.

The railroads didn't seem to be much interested either in the resolution which the shippers adopted:

"We move that the railroads be advised that it is the position of the grain trade that where official weights are obtained that freight charges be assessed and collected on the basis of said destination official weights, subject to tariff, minimum weights and rules."

SITUATION REMAINS CONSTANT

The cash situation on corn at Peoria has compared very closely with the situation in other markets, that is, for some time the movement has been light and the fact that our local industries have had to have about 75,000 bushels or more daily and also more or less demand for shipment has kept our market in rather good form as compared with other competing markets and we have been able here to sell corn of all sorts and especially anything of the low grade or Sample type and even the better sorts for several days have been bringing fully equal to other markets. These facts have given us arrivals just about sufficient for the local requirements.

The situation at this moment has not changed materially and while there are evidences of a better corn movement in Illinois a little later, which will also be the case in other states, the country movement at this time appears to us to be very light. The very high prices now prevailing will doubtless put more activity into the country situation as soon as threshing has been completed. We have been getting corn here from Illinois, Indiana, Iowa and Minnesota and our idea is that a good proportion of it has come from the West and Northwest.

The growing corn crop does not appear to us to be especially bad, though it is uneven and a good proportion of it late. Our opinion now is that about the only thing for us to think of is whether or not killing frost will come early. In other words, if the frosts are late Illinois may mature a very fair crop but the question now to consider is frosts and there is no need of worrying over this at this time. The present prices and futures are very high and certainly represent the value of a light corn crop.

The movement of new oats so far has been very disappointing. Reports from various sections of Illinois indicate that the crop is much lighter than first thought and we believe that estimates so far of the 1927 crop are too high and with the price of December oats in Chicago

64 cents under the price of December corn it seems to us that we are likely to have an advance in oats or else a decline in corn. The general shipping trade in oats is dull though at present the movement of the new crop, which is mostly of good quality, largely No. 2 White, is going into store. Values at Peoria are fully in line with any other competing markets. Very little has been done here in wheat and that on a basis of values corresponding with other markets.—*From P. B. & C. C. Miles, Peoria, Ill., letter dated August 10.*

SEATTLE ELECTION

The Board of Trustees of the Merchants Exchange Clearing House of Seattle, Wash., has elected the following officers for the coming year: President, L. P. Baumann; vice-president, A. A. Ryer; secretary, H. L. McIntyre; treasurer, W. H. Foster. Mr. Baumann has been in the grain and flour milling business of the Pacific Northwest for more than 30 years. He is vice-president of the Seattle Grain Company, secretary-treasurer and assistant general manager of the Centennial Mill Company and its subsidiaries, president of the Pacific Flour Export Company, trustee of the North Pacific Millers Asso-



L. P. BAUMANN

ciation and chairman of the Traffic Committee of the millers.

The Clearing House concluded its fiscal year on July 11 with records showing a marked increase over corresponding months of the previous year. The Clearing House is the grain futures trading market of the Pacific Northwest and operates in the Chamber of Commerce Building, Seattle, regularly licensed by the United States Department of Agriculture at Washington, D. C.

BUFFALO RECEIPTS LIGHT

Receipts of country grain in this market for the past month have been rather light and as a consequence spot values have ruled same. New wheat and oats are beginning to move and have met with a ready demand on arrival. Stocks of oats and corn in the hands of local manufacturers and eastern jobbers are reported as being unusually low for this season of the year and with only moderate crops in prospect we do not expect receipts to become burdensome at any time during the new crop year, and we are looking for a good healthy demand for all grain with the prospect pointing to higher levels than those ruling during the past two years.—*J. G. McKillen, Inc., Buffalo, N. Y., letter of August 11.*

CHANGES IN MEMBERSHIP

Chicago.—Memberships on the Board of Trade have been transferred as follows: Lee O. Wallace, Alfred Kramp, Theo. A. Schwengel, Ray S. Anderson, Richard H. Bunch, Lou J. Weitzman, Est. Orrel H. Rutledge, Estate Joe B. Palmer, John J. Crandall, Edw. T. Walker, Jr., James E. Grady, James A. Roberts, Jr., Kurt J. Bartsch, Estate Richard Sied-

enburg, Jr., Estate R. T. McKeever. New members on the Board are: Walter T. Rice, Earl B. Johnston, Shreve M. Archer, Charles J. Saibert, Harry E. Collin, Eli J. Radio, Jr., Don S. Price, Ronald W. Whineray, Raymond C. Pierce, Theodore H. Mueller, Thomas G. Keeley; Paul K. Corcoran, Carl A. Krull, Gerald R. Martin and Lloyd E. Beach. John Kellogg has been suspended for two years. Reported by Secretary James J. Fones.

Duluth.—New members on the Board of Trade are: A. C. Carroll, H. C. Romieux, W. L. Brisley and I. S. Moore. These members have withdrawn: Lauren Kellogg, W. W. Durham and W. G. Hegardt. Reported by Secretary Charles F. MacDonald.

TERMINAL NOTES

The Hutchinson, Kan., office of the Russell Grain Company of Kansas City, Mo., has been closed.

Articles of incorporation have been filed by the Calgary Terminal Grain Company, Ltd., of Calgary, Alta.

Gustave Neumond and Max Stein have taken over the export firm of K. & W. Neumond operating from New York City.

A seasonal branch office has been opened in Eagle Lake, Wis., by Thomson & McKinnon, grain brokers of Chicago, Ill.

The Toledo, Ohio, office of the Cargill Grain Company is to be managed by Wayne L. Norby who was formerly at Milwaukee, Wis.

Martin Overby has been appointed manager of the Wm. Bell Company office at Canton, S. D., to succeed C. C. Vickerman who resigned.

A branch office is to be established at Pipestone, Minn., for the Hallet & Carey Company, grain commission merchants of Minneapolis, Minn.

On July 31, a total of 12,191 cars of grain had been received in 1927 at Milwaukee, Wis., as compared to 11,256 cars received up to that date in 1926.

H. W. Olander is the new official sampler of the Minneapolis Chamber of Commerce. He was formerly with the Burdick Sampling Company.

The Winnipeg, Man., offices of the Jackson Bros., was closed on July 31. The business of this company is being handled by the N. Bawlf Grain Company.

Frank T. Kane is now with the Scoular-Bishop Grain Company of Kansas City, Mo. Mr. Kane was formerly with the Kaw Grain & Elevator Company.

The Equity Union Grain Company, commission merchants of Kansas City, Mo., has opened an office at Wymore, Neb., with S. L. Hassell in charge.

J. V. Strohecker is now traveling for the Murphy Grain Company of Kansas City, Mo. He was formerly manager of the Farmers Union at Washington, Kan.

Hewitt Harlow is now a general partner of Logan & Bryan and will be located at Los Angeles, Calif. He has been associated with the company for a number of years.

Clark E. Rathke, Ethel C. Rathke and Maurice A. Bristol have incorporated at Seattle, Wash., as the Rathke Grain Company. Its capital stock is \$500, no par value.

A grain brokerage business is being conducted in the Produce Exchange Building, New York City, by Robert G. Brandt. He was formerly with the Armour Grain Company.

H. H. Peterson of the L. Bartlett & Son Grain Company of Milwaukee, Wis., will represent the Gifford Grain Company of Cedar Rapids, Iowa, on the Milwaukee Exchange.

The Seattle grain futures market is being broadcast over KOMO by the Merchants Exchange. Customers are notified to tune in on wave length 305.9—kilocycles 980, at 12:15 p.m.

Last year's schedule of wheat discounts, differentials and sacking and switching charges for trading purposes have been adopted for this year by the Portland (Ore.) Merchants Exchange.

L. W. Perkins has resigned as traffic manager

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for the Cincinnati Grain & Hay Exchange of Cincinnati, Ohio. Mr. Perkins has acquired an interest in the O. A. Smith Agency in Cincinnati.

The permanent price for official certificates from the Sampling Department of the Minneapolis Chamber of Commerce has been fixed by the Board of Directors at 60 cents. The temporary price was 50 cents.

F. C. Maynard and E. F. Clapham have organized a new company at Boston, Mass., to conduct a grain brokerage business under the name of Maynard & Clapham. Mr. Maynard was formerly with Maynard & MacBrine.

E. L. Turkington is now in the grain business at San Francisco, Calif., as E. L. Turkington & Co., with offices in the Merchants Exchange Building. Mr. Turkington was formerly with the Dial Grain Company of San Francisco.

The Rural Grain Company has arranged with the Martin & Knowlton Grain Company to handle consignments at St. Louis, Mo. This enables the company to give shippers service at St. Louis as well as Chicago and Peoria.

Arrangements have been made with the Western Union Telegraph Company to send on CND reports giving opening high, low and close of the Seattle grain futures market which will be wired daily to subscribers for a charge of \$8.50.

The Baltimore Chamber of Commerce has adopted an amendment to its by-laws giving the Board of Directors power to fix from time to time the initiation fee for membership in the Chamber, which, heretofore, was fixed at \$1,000.

John J. Rammacher, president of the Buffalo Corn Exchange, is now a member of the board which will supervise the \$20,000,000 harbor development plan. Mr. Rammacher is also vice-president of the Eastern Grain & Elevator Corporation.

A. E. Bush has formed connections with the Cargill Grain Company, Milwaukee, Wis., taking the position left vacant when Wayne L. Norby was transferred to Toledo, Ohio. Mr. Bush was in the grain business in Milwaukee for himself a few years ago.

The trading floor of the Ogden Grain Exchange, Ogden, Utah, has been reopened as a cash market for Utah and southern Idaho millers and grain buyers with B. L. Slack as secretary. H. P. Iverson, president of the exchange, has appointed the various committees.

Milton H. Eschenburg is now connected with the Requa Bros., Chicago, Ill. He was for five years in the sales department of Henry Rang & Co., Chicago, and is the son of Peter H. Eschenburg, who was a member of the grain commission firm of Eschenburg & Dalton of Chicago.

Charles H. McCarthy, secretary of the McCarthy Bros. Company, grain merchants of Minneapolis, Minn., broke his neck while diving in Lake Pepin. He afterwards drove his car 25 miles to Rochester. Now he is in a cast at a Minneapolis hospital and physicians expect him to be up and around in two months.

The Davis-Noland-Merrill Grain Company now has a private wire on the Board of Trade at Salina, Kan., and is in the offices formerly occupied by the Goffe-Carkener Company which previously had the wire. The Goffe-Carkener concern has taken over the offices vacated by the Davis-Noland-Merrill Grain Company.

J. E. Owen is now associated with the Becher-Barrett, Lockerby Company, grain commission merchants of Minneapolis, and will travel in the interest of that firm in northeast North Dakota and northwest Minnesota with headquarters at Grand Forks, N. D. He was formerly a member of the Minneapolis Chamber of Commerce and the Duluth Board of Trade.

On July 20, the Norris Grain Company was incorporated at Toledo, Ohio, capitalized at \$50,000, by George D. Woodman, B. G. Anders and H. C. Sitzenstock. The company will take over the lease of the Baltimore & Ohio Elevator. This company

is a subsidiary of the Norris Grain Company of New York, Chicago and Winnipeg, of which the officers are James Norris, president; Walter Trappe, vice-president, and George Woodman, secretary-treasurer and manager.

A. H. Thompson of the Columbia Elevator Company has resigned his position on the Closing Price Committee of the Minneapolis Chamber of Commerce. G. A. Morris of the Electric Steel Elevator Company has been made chairman to succeed Mr. Thompson. Howard King of the Van Dusen-Harrington Company has been appointed to the committee to fill the vacancy.

The first car of new northwestern Winter wheat arriving at Minneapolis, Minn., this season was received by the Quinn-Shepherdson Company of Minneapolis. The Minneapolis Milling Company bought the car which came from Jefferson, S. D., tested 62½ pounds in weight, 10.5 protein and 13.4 moisture. The wheat graded No. 1 Hard and sold at 3 cents over Chicago September.

At the recent election of the Grain Exchange of Richmond, Va., John W. Justis was elected to the presidency; I. L. Sutherland, Sr., vice-president; W. F. Green, secretary-treasurer and inspector. F. H. Garber, Jr., S. T. Beveridge, A. L. Franklin, Thos. L. Moore, G. F. Banks, J. M. Roane, W. D. Saunders, A. R. Venable and W. P. Wood are the directors. W. D. Saunders is chairman of the Executive Committee; S. T. Beveridge of the Quotation Committee; S. T. Beveridge, Grain Committee; A. L. Franklin, Hay Committee; Thomas L. Moore, Arbitration Committee; W. C. Ervin, Appeal; Thomas L. Moore, Trade; A. R. Venable, New Membership.

WHEAT SHIP SINKS WITH CARGO AT MONTREAL

The steamship *Burlington*, owned by D. Sullivan & Co., operators of the Rutland-Lake Michigan Transit Company, and registered in Chicago, sank in Montreal harbor August 12. It left Buffalo on August 8 with a cargo of 65,700 tons of Hard wheat.

On reaching Montreal, Captain W. R. Russell ordered the pumps to be operated. Inadvertently the sea cock was opened and the holds began to fill with water. The valves jammed and the ship sank. Her funnel, forecastle, and starboard bulwarks only are above water.

GENERAL CREDENCE GIVEN TO FEDERAL REPORT

An estimated wheat crop of 851,000,000 bushels for the United States and 357,000,000 bushels for Canada was given to the trade five days ago by the United States and Canadian governments. They suggest 1,210,000,000 bushels for the two countries compared with 1,156,000,000 bushels in August last year, and a harvest of 1,241,000,000 bushels. It is enough wheat for all domestic requirements and to provide for a large exportable surplus which is expected to be wanted by Europe.

The corn crop of 2,385,000,000 was 109,000,000 bushels over the July returns, 97,000,000 bushels less than a year ago, and compared with 2,645,000,000 bushels last year. In the nine corn belt states there is an estimated crop of 1,496,000,000 bushels a gain of 83,000,000 bushels in July as the par basis on which the crop was figured advanced around a bushel per acre. As compared with last year there is a decrease of 145,000,000 bushels, and a loss of 316,000,000 bushels from the five-year average.

A significant feature in the corn report of which the department makes special mention, is that much of the corn is so late that only an unusually late warm fall will prevent frost damage and abandonment of acreage considerably above the average.

A total of 4,827,000,000 bushels is suggested by the Government for the five grains, an increase over the July returns of 45,000,000 bushels, also a loss of 133,000,000 bushels, as compared with a year ago, and a loss of 126,000,000 bushels from last year's final returns, while as compared with the

five-year average there is a decrease of 358,000,000 bushels.

A Winter wheat crop of 553,000,000 bushels decreased 26,000,000 bushels from last month and compared with 627,000,000 bushels as the final last year, while a year ago the crop was 626,000,000 bushels. Disappointing threshing returns, making a lower yield per acre due to unfavorable weather conditions at the critical period caused the reduction.

Kansas has a wheat crop of 111,694,000 bushels, compared with 123,338,000 bushels last month and 150,000,000 bushels harvested last year. Its average is 119,000,000 bushels. Nebraska has 72,597,000 bushels, a cut of 2,000,000 bushels in July and practically double last year's.

TRADE NOTES

Conveying data which will answer any conveying problem out of hand can be found in the 144-page Belt Conveyor Data Book No. 615, just issued by the Link Belt Company of Chicago. It is an engineers' handbook, with formulae, design and construction of all kinds of conveyors, and in addition is richly illustrated and interestingly completed. It should be within reach of every operator of elevator or mill for it covers the subject thoroughly. It may be had upon request.

"Catalog Number 50" is the designation given by the Webster Manufacturing Company of Chicago to its latest contribution to trade literature. And it is a contribution in fact, as it contains 96 pages of illustrated description of chains and sprockets for every conceivable use in or about an elevator or mill. Besides relating innumerable uses for chains and their attachments, the catalog is made complete with many pages of tables, chain and sprocket specifications and prices. The prices of course are the latest and supersede previous catalogs. Any dealer who uses chains for drags, conveyors or what not in his plant, or handles chains for farm uses or implements, should have a copy of this book which will be sent on request.

"The particular composition of milk, with its bone building minerals, its tissue building proteins, and energy producing lactose or milk sugar, makes it an especially desirable food for young animals," said Dr. H. E. Van Norman, president, American Dry Milk Institute, at the recent meeting of the American Baby Chick Producer's Association convention in Chicago. "Publications of our state experimental stations have repeatedly brought this out. Dr. Beach's work at California has shown the possibility of controlling coccidiosis in growing chicks by using dry skim milk. Its use for this purpose has developed an increasing interest in dry skim milk for healthy chicks, as well as for laying and breeding hens. Improvement in the processes of drying and the increase in the manufacture of drying equipment makes milk solids in the dry form available to all poultrymen. Many sections have a local supply of milk in some form—usually liquid skim milk—but, in many places where the fresh milk is not available, the dry form is the most convenient to use. Dry skim milk has the advantages of low cost of transportation, good keeping qualities, ease of storage without the necessity of refrigeration, the convenience with which it can be used in dry mashes, and, above all, a high feeding value." The American Dry Milk Institute, 160 North La Salle Street, Chicago, issues frequent bulletins containing formulas and feeding data. If you are not on this mailing list you are missing much valuable and suggestive feed material.

POLAND reports oats production of 208,197,000 bushels, a decrease of less than 1 per cent from that of last year.

WHEAT exports from Galveston, Texas, during July amounted to 5,186,271 bushels as compared with 13,014,380 for the same month last year. Barley amounting to 190,200 bushels were exported during July.

CANADIAN WHEAT BOARD RETIRES

On September 1 the Canadian Wheat Board created by the Dominion Government on July 31, 1919, goes out of existence. It was created for the purpose of fixing prices of wheat and taking possession of the crop and functioned until 1921.

The wheat growers were given "participation certificates" to be surrendered after it was ascertained how much was due. Although it is more than seven years since the first certificate was issued and five years since the last many are still outstanding and the holders will never receive payment, due to the failure to protect the certificates, the amount retained by the Government being nearly \$735,000.

CROP PRICES LOWER

The general level of farm prices for July held at 130, the same as for June, according to the August report of the Department of Agriculture. Only small changes by the several groups of products making up the general index of farm prices were recorded. At 130, the price level is six points below a year ago.

Corn followed the upward movement which has been continuous since March, while all other grains turned downward from June to July 15. The farm price of cotton continued upward. The heavy production of hay this season has resulted in a falling off in hay prices of about 11 per cent since June 15, although the market for quality grades shows full strength.

"JAY BEE" SALES MANAGERS CONVENTION

The first annual J. B. Sedberry, Inc., salesmanagers' convention was held in the Martin Hotel, Utica, N. Y., June 29 to July 1, 1927. The purpose



J. B. SEDBERRY, INC., SALES MANAGERS' CONVENTION, UTICA, N. Y. INSET: JOHN J. WOODS, "JAY BEE" DISTRIBUTOR, KANSAS CITY, MO., CHAIRMAN OF CONVENTION

of the convention was to determine more uses of the "Jay Bee" mill, ways and means of selling it, and to create good fellowship and greater co-operation among the salesmen. John J. Woods, Kansas City, Mo., presided as chairman of the convention. The salesmanagers read papers on their particular experiences in "Jay Bee" Mills; how they are used in the different industries; how these industries profit through the use of a "Jay Bee" Mill; and how the "Jay Bee" Mill is sold.

Gilbert Butler, secretary-treasurer, Bossert Corporation, manufacturers of the "Jay Bee" Mill, welcomed the "Jay Bee" salesmanagers. Francis K. Kernan, president Bossert Corporation, spoke of the progress that has been made in the development of the "Jay Bee" Mill. He told why the Bossert Corporation, as the world's largest manufacturer of heavy steel stampings, is especially qualified to manufacture an all steel hammer mill, such as the

"Jay Bee", better and at a less cost than other less well equipped manufacturers could do.

Chester W. Falls, industrial engineer of the General Electric Company, Schenectady, N. Y., gave a splendid talk and demonstration on direct connected mills with particular reference to motors and starting compensators. Walter J. Clement, engineer, Bossert Corporation, and C. F. Schutte, J. B. Sedberry, Inc., piloted the salesmanagers through the huge Bossert plant. They showed and



"JAY BEE" LINE OF FEED MILLS AT PLANT OF THE BOSSERT CORPORATION, UTICA

explained every detail in the manufacture of the "Jay Bee" Mill. This was a revelation to many who had not previously been through the plant, as it pointed out economies in volume manufacture and sturdiness of construction that can be found only in an all steel hammer mill.

Evening entertainment was furnished all attending the convention by Bossert Corporation and J. B. Sedberry, Inc. Special entertainment for the ladies while the convention was in session, in the form

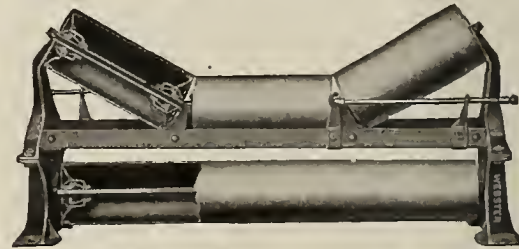
Tennessee, Nashville, Tenn.; Harry S. Williams, eastern representative, Utica, N. Y.; W. N. Morley, Toronto, Ont., Can.; A. V. Foote, manager, J. B. Sedberry Company, Chicago, Ill.; H. A. Lester, Oklahoma City, Okla.; E. Peterson, Porter-Eastmon-Byrne Company, advertising agency, Chicago, Ill., in charge of "Jay Bee" advertising; Charles Norton, vice-president and general manager, Howell Electric Company, Howell, Mich.; Chester W. Falls, industrial engineer, General Electric Company,

Schenectady, N. Y.; W. C. Clingan, special representative, S. K. F. Industries, New York.

All who attended this convention maintained that this was probably the most successful convention of its kind ever held. Not a single man was outside the convention room during its sessions. Everyone was on his toes every minute getting everything that was said and done; and went away feeling that he had received material assistance in furthering the sales and uses of the "Jay Bee" Mill. Mr. Woods was elected chairman of Sales Managers Convention for 1928.

NEW WEBSTER CONVEYOR ROLL

A new type of conveyor roll is now being placed on the market by The Webster Manufacturing Company, Chicago, Ill. The roll is practically unbreakable; made entirely of malleable iron and steel. There is no cast iron used in its construction. The carrier and return rolls are made of six-inch steel tubing. The end caps are of malleable iron, fitted in the tubing with edge protruding and extending flush with the outside of the tubing. The cap fits tight, excluding all dust from the bearings. Extra heavy tubing is used and the rolls are turned and



THE NEW WEBSTER CONVEYOR ROLL

balanced. Edges of the rolls are rounded, there is a minimum of space between the concentrator and horizontal pulleys. These features protect the belts from wear and eliminate pinching at the bend and adds longer life to the belt.

Two Timken Roller Bearings, the same type as used in automobiles, are fitted to each roll. Special adjusting collars easily accessible are provided to take up wear and adjust should occasion require. The lubricating can be done while the conveyor is running—each bearing is fitted with positive high pressure lubricating system. All fittings are accessible from the outside.

One of the most desirable features is that all parts are easily removed from the frame—rolls can be lifted out and replaced with ease. There are no screws or bolts used in assembly. Before offering to the trade it was thoroughly tried out in actual service and has proved entirely satisfactory.

THE WHEAT MARKET SITUATION

By H. S. IRWIN AND GEORGIA E. CANTRELL
Grain Market News Service, United States Bureau of
Agricultural Economics.

Present prospects point to a continued good demand for the wheat now in the midst of harvest in the United States. Domestic requirements are likely to be at least as large as in 1926-27, while conditions in other countries indicate that the surplus available for export this season will find a ready market. With a crop forecast considerably in excess of domestic needs the price of wheat in this country will depend chiefly upon the level of world prices. These in turn will be largely governed by the outturn of Spring wheat in the Northern Hemisphere where much of the crop is still exposed to damage and later by crop developments and yields in the Southern Hemisphere. Present conditions indicate a wheat harvest in the Northern Hemisphere, excluding Russia and China, about the same as a year ago, while some reduction from last year's large crop seems likely in the Southern Hemisphere where seeding conditions have been rather unfavorable.

FLOUR CONSUMPTION GAINING

Slightly more wheat may be required for domestic consumption this season than last, largely because of the gradual increase in population. Around 1½ per cent more flour moved into consuming channels in 1926-27 than during the previous year, continuing the upward trend in flour requirements which has been apparent since 1921 but which has hardly equaled the increase of a little over 1½ per cent in population for that time. Mill demand for wheat is expected to be of good volume since flour stocks at the beginning of the season were not excessive. Flour stocks reported by mills on July 1 were materially smaller than earlier in the season and were only about 10 per cent larger than a year back when they were probably unusually low. Complaints of dullness in the flour trade in recent months also suggest that wholesale and retail dealers may have reduced their holdings. These factors point to a milling demand for wheat for domestic use possibly a little larger than in 1926-27 although buying may be distributed more evenly throughout the season. Exports of flour will depend largely on foreign competition but are likely to be larger than they were in 1925-26 when relatively high prices of wheat in this country tended to restrict shipments.

Around 124,000,000 bushels of wheat or 24,000,000 more than a year ago were brought forward into this season on farms, in country mills and elevators, in merchant mills, and in commercial channels. Should the harvest bear out the July 1 forecast a total supply, excluding imports, of about 977,500,000 bushels is indicated compared with approximately 932,000,000 bushels a year back. Out of last year's total supply together with imports of over 13,000,000 bushels about 560,000,000 bushels were ground into flour, 156,000,000 were exported as grain, and around 83,000,000 bushels were probably used for seed. Subtracting the carryover at the end of the season a balance of nearly 25,000,000 bushels remains for miscellaneous uses, feed and waste. Out of the 560,000,000 bushels milled, flour was exported to the equivalent of around 63,000,000 bushels of wheat.

SOME WHEATS MAY COMMAND PREMIUMS

With indications of a substantial surplus of wheat for export from this season's crop, wheat prices in this country are likely to conform rather closely to world prices on the whole although premiums for desirable milling wheat may be higher than last season. Soft Winter wheat will be near a domestic basis since the indicated decrease in the harvest of this wheat approximates the amount of Soft Red Winter wheat inspected for export during 1926-27 and the production is placed slightly lower than for 1924-25 when this wheat sold at somewhat higher prices than Hard Winter wheat. Spring wheat prices will be much influenced by the outturn of the North American crop which is still exposed to damage both in the United States and Canada. Domestic production of Hard Red Spring was forecast from the July 1

condition at nearly 45,000,000 bushels larger than a year ago and private reports indicate an improvement during July.

Protein content is also likely to be a more important factor in wheat prices than it was last season when the excellent quality and high protein test of the Hard Winter wheat crop rendered the protein content less important than for some years previous. A year ago wheat testing 11-11½ per cent protein sold at Kansas City at practically the same figure as that testing 12 per cent while in the Northwest good test weight and low moisture were given more weight than protein during much of the 1926-27 season. This year the low protein test of many of the arrivals at Kansas City has resulted in a premium of around 1½ cents a bushel for even 11½ per cent protein and 3 cents for that testing 12 per cent. No. 2 Hard Winter, testing 13 per cent protein, is selling at that market at about 6 cents premium over that carrying 12 per cent against approximately 2 cents a year ago and nearly 5 cents two years back. At Minneapolis 13 per cent protein commands around 7 cents a bushel over that testing 12 per cent. This compares with 2-3 cents a year ago and about 9 cents two years back.

EFFECT OF WORLD SUPPLIES UNCERTAIN

World crops are not sufficiently advanced at this time to indicate clearly the trend of world wheat prices which will largely determine the level of domestic prices during 1927-28. Available reports early in July indicated a wheat crop in the Northern Hemisphere outside Russia and China practically the same as a year ago with a little more in prospect in Europe and a little less in North America. Rye production was placed at about last year's figure, according to trade reports which also claim some reduction in the acreage sown to wheat in the Southern Hemisphere. Supplies of wheat in the principal exporting countries and on ocean passage were somewhat larger on July 1 than a year ago and port stocks have recently increased in important European countries but stocks of native wheat in Europe are very low and the crops over a wide area there are one to three weeks late. This will tend to increase the pre-harvest demand for imported grain. These factors do not suggest any material change from last season's wheat prices, particularly since the larger crops in Europe would probably result in heavier local consumption there and would not be likely to reduce import needs by the full amount of the increase just as short crops in these countries are not fully reflected in increased imports.

Some deterioration in European crops, however, is suggested by latest trade reports while private estimates indicate a moderate increase in the United States crop over the July forecast and claim substantial improvement in Canadian prospects during July.

Possibly the most uncertain factor in the Northern Hemisphere developments is the Canadian crop. The acreage of Spring wheat there is approximately 7 per cent under last year's figure, largely because continued rains hindered seeding last spring. The crop, however, has progressed rapidly from its late start with moisture conditions unusually favorable, and according to the *Manitoba Free Press* the whole crop in the Prairie Provinces was expected to be in the head by the end of the first week in August. The crop is late, however, and may be susceptible to early frosts. Black stem rust is also present in some localities and might develop rapidly should weather conditions favor its spread.

Reports on the Russian wheat crop are conflicting but trade opinion indicates a crop hardly so large as last year's harvest in spite of some reported shifts from rye to wheat. Definite information upon the Chinese wheat crop is lacking although prospects were good in the region which supplies the Shanghai flour mills. A further indication may be the limited Oriental demand for new crop wheat from the Pacific Northwest.

In the Southern Hemisphere drought hindered seeding and may have cut down the acreage sown

to wheat. Seeding has been much delayed in Australia where prospects early in July were that the acreage might be materially under last year's figure. The unusually late seeding in Argentina was regarded by trade authorities as unfavorable but the preliminary estimate of wheat acreage by the Ministry of Agriculture is substantially the same as a year ago in spite of early difficulties. Favorable conditions in both countries could overbalance the poor start of the crops but it is not likely that the outturn in the Southern Hemisphere will equal last year's large harvest.

CARRYOVER CHECKED

Figures compiled by the Millers National Federation in August, indicate a total carryover of wheat in all positions of not less than 90,000,000 bushels. "This would indicate," says President Anderson, of that organization, "that the Department of Agriculture's estimate of production on the 1926-27 crop, or their estimated carryover at the beginning of that year, was too slow."

SOVIET STORAGE EXPANDS

The elevator committee of the council of labor and defense in Soviet Russia has drawn up a plan for the construction of elevators, whereby it is proposed to construct within the next five years 300 along the railway line for the interior. A further scheme for the erection of elevators at the ports is in preparation. Eighty elevators are already in use, and these additional 300 will raise the Soviet wheat storage and transport capacity to about 120,000,000 bushels.

Recent statements that elevators and other grain handling terminal units are to be installed in Poland and Russia have been confirmed in Washington, D. C.

BRAZIL TRIES "AMERICANO"

Seed wheat imported for Brazil refuses to become "Brazilianized," and late trials with Tunis wheat have yielded little more than discouragement. *Americano*, *Barletta*, *Pellon* and *Timor* are a few of the varieties tried.

On poor soils much of the wheat died immediately after germination. On the other hand, wheat such as *Barletta 52*, *Adjini*, and the control wheat "*Alfredo Chaves 1-20*" grew well on good soils.

In Parana nearly all varieties germinated badly, or very badly, and died immediately following the production of the first leaves; only the two Italian varieties, *Barletta 52* and *52 bis*, produced respectively one and two complete plants.

At the Rio Grande do Sul Station, oats similarly were badly attacked by rust and gave bad results. Better results were however obtained at the Experiment Station of Ponta Grossa (Parana) with the Russian oat and the Cream oat. In the Brazilian state of Minas, Monte Claras wheat has been grown successfully for more than 100 years.

EXTENSION FOR HOUSTON

An extension to the port conveyor at Houston, Texas, has been completed, permitting two ships to be loaded at the same time. This extension, writes George S. Colby, superintendent of the Houston Public Elevator, includes two more belts or four belts altogether leading from the elevator to the water front. Each belt has a carrying capacity of 25,000 bushels per hour, allowing a total loading capacity of 100,000 bushels per hour.

One of the first assignments of the new equipment was the loading of the steamship *Deer Lodge* at the new berth, July 30, while the *Sahale* was being taken care of at the old berth.

MEMBERS of the wheat pools of the Prairie Provinces are soon to receive an interim payment of \$27,000,000, according to a report from the office of the American commercial attache at Ottawa. It is estimated that the grain crops yield will be high if good weather continues.

NEWS LETTERS

ST. LOUIS

FAIRMOUNT

CORRESPONDENT

MIXED conditions are beginning to make themselves felt within this zone. The movement of soft wheat is exceedingly small as compared to other seasons and the quality is inferior. This is preventing the storage interests from filling up as customary, and the competition between mills for the choice starchy varieties is beginning to cause premiums to improve. The low grades on the other hand are dragging and are in excess of the mixing possibilities. More attention is being paid to moisture and to test weight than earlier in the season. The demand is becoming more critical as to qualities, with the average of the quality lower, so that the market does not clear itself of the arrivals as thoroughly as usual. Exporters are taking the hard wheat readily and following the advance in the futures. There is an excellent demand here for the latter, with the prospect of well maintained prices. The barge line from St. Louis to the Gulf is really the price making influence now on hard wheats, and this terminal should continue to show the best results on western qualities.

Under date of July 21, E. P. Costello, assistant traffic commissioner of the St. Louis Merchants Exchange, was appointed traffic commissioner to succeed Charles Rippin, who resigned to enter the real estate business, the appointment being effective August 1, 1927. Mr. Costello has been with the Merchants Exchange for many years and is considered an expert on grain and hay rates.

The Merchants Exchange has had the pleasure of receiving many members of the National Hay Association who paid frequent visits to the trading floor. Open house was the rule to all wearing the National Hay Association emblem.

Big Ed Rusk of the Halliday Elevator Company, of Cairo, Ill., was a visitor on the Exchange on July 25.

Geo. F. Powell, president of the Powell & O'Rourke Grain Company and a former president of the St. Louis Merchants Exchange, has been confined to St. John's Hospital for some 10 days. It is hoped that Mr. Powell will be back again with us shortly, and the sympathy of the members has been extended to him in his sickness.

V. C. Elmore, one of the old guards of Illinois grain shippers, was with us on July 30. Mr. Elmore is well known to all the members who are always glad to see him.

The St. Louis market has enjoyed a large movement of wheat through this gateway. A large per cent of the receipts consist of wheat from Kansas City, Omaha and the West which has been sold for export moving through St. Louis to New Orleans, via the barge line. It has been stated that one million bushel of space has been contracted for during the month of August to move wheat to New Orleans.

Ward Brown, the genial purchasing agent of the Ralston Purina Company, has just returned from a vacation trip to the Northwest, visiting his old home at Duluth. He is looking well and brown as a berry and apparently loth to get to work.

The thirty-fourth annual convention of the National Hay Association has just completed its labors and closed "sine die". There was 157 registered, including the ladies and representatives of trade journals. While the registration was very light, the attendance at the business sessions was proportionally heavy, the members apparently taking much interest in the proceedings. The attendance was largely of representatives from terminal markets, Kansas City having the largest representation, with Chicago and Omaha well represented. The light attendance was due mainly to the fact that the time was ill advised, it being hay harvest in many sections and the warm weather at the time kept many dealers at home. Mayor Miller

and John P. Leahy, a former attorney of this city, made addresses which were well received. The entertainment furnished by the St. Louis Merchants Exchange was much enjoyed and favorably commented on by the members and their ladies enjoying them. A boat trip on the Mississippi, an evening at the Municipal Opera and a dinner dance after the opera were among the entertainment features offered. A special committee had in charge the entertainment of the ladies, under the chairmanship of Walter P. Crispin who by the way is a newlywed. Mr. Crispin was ably assisted by the following ladies: Miss Bell, Mrs. Walter P. Crispin, Mrs. S. P. Stead, Mrs. Beardsley. The Merchants Exchange and the St. Louis membership did everything possible to make the meeting a success, as it was.

INDIANAPOLIS

H. M. RUDEAUX

CORRESPONDENT

INDIANA'S king of crops, corn, is in the poorest condition of any year on which records have been kept, is the report given out by the Purdue University agricultural department station. Reports show that the corn crop on July 1 was only 56 per cent normal. The acreage is 12 per cent below that of last year, also showing only 4,111,000 acres, much of which was planted after June 1. Last year at this time the crop was reported 72 per cent normal and in 1924 it was reported 61 per cent normal, with the 10-year average 82 per cent. Indiana farmers seeded practically the same acreage of oats this year that they did last year, in spite of the wet spring. The acreage reported is 2,030,000 or 99 per cent of last season's area. The condition of oats is reported 72 per cent normal, indicating a yield of practically 2,000,000 bushels under last year.

Government scouts working in co-operation with the state department of conservation have found infestations of the European corn borer in seven additional townships in Noble, Allen and Whitley Counties, according to Frank N. Wallace, state entomologist, who is in charge of relief operations in the area. The Government scouts have found the borer in Jefferson, York and Allen Townships, in Noble County and in Wayne, Adams and Jefferson Townships in Allen County, and in Smith Township in Whitley County.

No new green corn will be permitted to leave the infested area. The quarantine line runs north and south through Lagrange, Noble and Whitley Counties and east and west through Whitley and Allen Counties. While no corn on the cob will be permitted to be shipped out of the infested area, no restrictions will be placed on the shipment of any corn on the cob into the infested area from clean areas. The flight of the moth of the borer starts in June and is still in progress to some extent. Because of this the Government scouts working in the area have found egg masses and young borers. In the coming fall and winter the work will be started on destroying all corn stalks in order to destroy the borers in the stalks.

About 19 per cent of the arrivals of new wheat are showing smut. As a rule there is only a slight indication, and arrivals are disposed of at a slight discount, but in some cases where a heavy smut appears it is almost impossible to dispose of it. The condition is brought about by poor seed, or seed that has not been treated, and farmers are being urged throughout country elevator operators to treat their seed.

Reduced rates on hay from points in Indiana, Ohio and Michigan to destinations in the South have been agreed to by the carriers in central territory and have been authorized by the Interstate Commerce Commission, which has granted special permission for publication it is almost impossible to dispose of it. The complaints including the Northeastern Indiana Hay Dealers Association, alleged discriminations in favor of eastern shippers of hay to Georgia, and the Carolina's. Senator James E. Watson, who brought the complaints to the attention of the Commission has been informed by W. V. Hardie, director of the commis-

sion's traffic bureau, that substantial rate reductions to Virginia cities and the Ohio River crossings will be applicable on hay destined to points in the South and Southeast. The new rates will greatly benefit members of the Indianapolis Board of Trade who cater to the southern hay dealers. Eastern hay shippers have enjoyed a rate to southern states which has been about 20 per cent lower than that of Indiana and other central states, causing a reduction in tonnage shipments from the state since 1924 of approximately 50 per cent.

New oats are coming in in good shape, and unless a rainy period sets in the crop will be harvested in good shape. Most of the wheat has been threshed, with the exception of a small portion in the extreme northern part of the state, under ideal weather conditions. Farmers are selling their wheat freely and the movement to this market has been very heavy. Commission merchants report an excellent demand for rye with very light arrivals. Moderate advices from the country indicate a heavier movement of corn in the very near future, with a good demand.

Commission merchants believe that not more than one third of the new corn crop will be salable on account of quality due to late planting, and still in great danger. There is no promise of a bumper crop, and with the late planting, the poor start it had in the spring, cool nights, and none too warm days, the crop will be very short.

Laporte County farmers, members of the Indiana wheat pool, are going to stand by their contracts to remain with the pool two more years, despite rumors sometime ago that a score of them were planning to jump their contracts. B. B. Bemmer of Mays, Ind., president of the state pool, in addressing about 75 members at a recent meeting said that unless farmers continue to be organized, peasantry will overtake the rural classes within the next few years.

Martin Summers, age 92, of Lebanon, Ind., a civil war veteran, died on August 4. Mr. Martin was reputed as the inventor of the first device for binding wheat and other grain. The first model of his patent, granted in 1871, is preserved in the patent office at Washington, and a duplicate has been preserved in his home.

O. P. Larimore, traveling representative of the Cleveland Grain & Milling Company, has been confined to his home on account of illness.

NEW YORK

C. K. TRAFTON - CORRESPONDENT

THE monotony of everyday life on the New York Produce Exchange was enlivened last month by one of those pleasing little functions outside of the regular routine of business. While attending to his business as usual, L. W. Forbell of L. W. Forbell & Co., grain brokers, suddenly found himself surrounded by about a hundred of his fellow-members. Because of the cheering and general commotion he was inclined at first to suspect some practical joke, but he was quick to realize that it was something entirely different when he saw former-president Elliot T. Barrows in a prominent position. After the noise had subsided somewhat Mr. Barrows delivered one of the addresses for which he is famous, conveying to Mr. Forbell the friendly sentiments entertained by his fellow-members and their keen appreciation of his many years of service. At the completion of his speech he presented Mr. Forbell with a handsome gold watch inscribed as follows: "Presented to Leverich W. Forbell by his friends on the New York Produce Exchange—commemorating his long and faithful service on the Board of Managers—1915-1927." At the other end of the gold and platinum chain was a handsome gold knife bearing the initials "L. W. F." As was wholly natural, especially in view of the unexpectedness of the whole affair, Mr. Forbell was greatly affected and momentarily seemed to be practically speechless. He finally regained control of his emotions and was able to deliver a fitting response. In addition to sitting with the Board of Managers, Mr. Forbell

has done valuable work on two of the most important Exchange committees. He has been chairman of the Committee on Information and Statistics since 1915 and for a number of years has been chairman of the Committee on Rooms and Fixtures. In addition he has served as a representative of the Exchange at Washington and in the West at various times.

Ralph Gray of Leete's Superintendence Corporation of America, cargo superintendents, was among the applicants admitted to membership in the New York Produce Exchange at the August meeting of the Board of Managers.

John F. Ince and William B. Fritz, formerly connected with the firm of B. F. Schwartz & Co., are expected to engage in the grain commission business on their own account on the New York Produce Exchange.

James P. Reichmann, associated with Lamson Bros. & Co., on the Chicago Board of Trade, came east on his vacation and spent a few hours with members of the grain trade on the New York Produce Exchange.

J. Murdoch Dennis of Dennis & Co., Inc., grain commission merchants of Baltimore, was elected to membership in the New York Produce Exchange at the last meeting of the Board of Managers.

According to a notice posted on the bulletin boards of the New York Produce Exchange, ownership of the export firm of K. & E. Neumond has passed into the hands of Gustave Neumond and Max Stein.

The announcement that W. L. Sweet & Co., flour brokers on the New York Produce Exchange, were liquidating their business was read with regret by many members of the flour trade and those in other lines also, as this firm had been in business here for 80 years and was always highly respected.

Ludwig Eisemann of Eisemann & Co., Inc., dealers in grain and feeds, has been elected to membership in the New York Produce Exchange.

An interesting and encouraging development on the New York Produce Exchange this month was the installation of a private wire service with the principal markets in the United States and Canada by Hurlburd, Warren & Chandler. The local office of this Chicago Board of Trade firm is under the management of Arthur F. Eastman, formerly representative here of the James Stewart Grain Company.

The officers and Board of Managers of the New York Produce Exchange have announced the appointment of the following committees to serve during the ensuing year: Trade and Transportation: Walter Moore, chairman, H. Myers Bogert, R. M. Morgan, H. L. Bodman, E. L. Sanderson; Railway Affairs: S. D. Riddle, chairman, E. J. Bauer, W. J. Ormond, H. T. E. Pansius, John O. James; Grain: A. C. Field, chairman, J. J. O'Donohoe, Walter Trapper, W. F. Rosar, H. G. Gere; Grain Futures: Axel Hansen, chairman, R. H. Straub, C. W. Andrus, F. H. Teller, W. F. Rosar, H. B. Weston, B. F. Schwartz; Flour: F. O. Seaver, chairman, Albert F. Janss, J. O. Wade, H. W. Gladwin, Ed. F. Siney; Provisions: F. B. Cooper, chairman, D. W. Frazer, A. L. Snow, John H. Burns, W. R. Farrell; Hay and Grain: Frank S. Voorhees, chairman, Thomas M. Blake, H. G. Gere, F. L. Levi, Charles Schaefer; Maritime Affairs: R. D. Wrigley, chairman, Roger N. Black, F. E. Hasler, Winchester Noyes, John W. Edgett; Delivery of Warehouse Grain: Wm. C. Mott, chairman, Thomas W. Kane, Charles A. Robinson; Carlot (Grain): Joseph A. Abel, Jr., chairman, Edwin C. Barnes, J. H. Bowne, R. J. Kaiser, T. M. Blake; Grain Commission Rules: F. H. Teller, chairman, J. H. Bowne, C. C. Rubins, Carl F. Andrus; Seeds: William Jacot, chairman, Marshall H. Duryea, Ernst Wehncke, O. W. F. Randolph; Information and Statistics: Robert F. Straub, chairman, H. L. Bodman, Wm. Knight, H. P. Kidd, E. W. S. Knudsen.

William A. Neubauer of Lamson Bros. & Co., commission merchants on the Chicago Board of Trade, spent part of his vacation in the East and was a late July visitor on the New York Produce Exchange.

R. W. Tyson, Jr., of Henry Hentz & Co., has been elected to membership in the New York Produce Exchange.

Richard L. Sweet, of W. L. Sweet & Co., who was appointed superintendent of the New York Produce Exchange Building, has resigned from the Board of Managers of the Exchange. Thomas H. Van Boskerck, of G. W. Van Boskerck & Son, flour and grain, has been elected to serve the balance of Mr. Sweet's term.

Fernand Leval, of Louis Dreyfus & Co., grain merchants, has been appointed on the Grain Futures Committee of the New York Produce Exchange to fill the vacancy caused by the resignation of B. F. Schwartz.

For the convenience of traders in grain and cottonseed-oil on the New York Produce Exchange who are usually situated on the huge floor too far away from

those markets to follow the price changes instantaneously a projecting device has been installed which will flash all quotations on a screen in greatly magnified form, similar to the apparatus in use in numerous stock exchange houses to display quotations on the stock ticker tape.

MINNEAPOLIS

ALBERT W. MORSE CORRESPONDENT

EARLY in August the first cars of grain of the new crop arrived at Minneapolis, and they indicated to some extent what may be expected from the various localities. McCabe Bros. Company received the first car of oats of this year's crop on August 6, from Delhi, Minn. These oats were light testing 25 pounds per bushel and graded No. 4, White. L. F. McCabe, coarse grain salesman of the firm, handled the oats on the floor, and sold the car on August 8 at the September price to Cereal Grading Company. Mr. McCabe believes that southern Minnesota oats will generally be light weight, but for the most part have very good color. He received a car of new oats on August 10 from Brookings, S. D., grading No. 3 White, testing 31½ pounds, which he sold at 2½ cents over the September price to the Union Elevator Company.

The Tenney Company, on August 8, received the first car of new Durum, which contained 65 per cent Durum and 35 per cent Spring. It graded No. 1 Mixed, and showed 14.35 protein. This car was sold on August 9 to Pillsbury Flour Mills Company at 12 cents above the Duluth September price. It came from Woonsocket, S. D.

Van Dusen-Harrington Company, on August 8, received a car of wheat which graded No. 2 Amher, tested 13.30 protein. This car was sold for 28 cents above the Duluth September price to Pillsbury Flour Mills Company. It came from Huron, S. D., and was handled on the floor by Clark W. Ewe, wheat salesman of Van Dusen-Harrington Company. Mr. Ewe anticipates that the good wheat this year will be exceptionally good, but that a lot of the crop will be poor.

C. C. Wyman & Co. received the first car of Red Durum of the new crop. This came on August 8, but was sent on for conditioning, and arrived at Hunter Elevator No. 1 August 10, because of the fact that it tested 17½ per cent moisture, heating. It was combine threshed, and came from the Farmers Elevator Company, Ashton, S. D. It was graded Sample grade, smutty. The combining of the work of a binder and thresher in one operation has been shown before as unfit for this territory, with no time allowed for drying. C. H. Green of C. C. Wyman & Co., who handled this car on the floor, believes that much damage has been done to the wheat this year by rust, but thinks that the extent of this damage can not be estimated until after threshing.

A. F. Evenson, chairman of the State Board of Grain Appeals, and Mrs. Evenson, returned to Minneapolis July 18 from a pleasure trip of two weeks. They visited Fort Arthur, Montreal, Toronto and Quebec, Canada. Mr. Evenson says that he didn't see a single grain man during his entire trip.

E. W. Dittes, vice-president, W. C. Mitchell Company, returned August 8 from a business trip of about three weeks through northern Minnesota, Montana, North Dakota and South Dakota. He reports that in the northern Minnesota region north of Crookston, wheat is a little late. In Montana and in North Dakota and South Dakota west of the Missouri River, he says that conditions are excellent. Wheat in North Dakota and South Dakota east of the Missouri is spotted, with black rust in some localities, he reports. The oats crop in general is poor, Mr. Dittes says, and as a result of this condition he thinks that farmers will not be in a hurry to market their barley, as they will use it for feed. The barley crop is very good, he reports. With weather permitting, and the frost holding off, he believes that there will be an excellent flax yield in North Dakota. Corn in general is backward, he says, and its success will depend entirely upon the having of the most favorable weather during the next six weeks. W. C. Mitchell Company contemplates handling a large volume of business during the ensuing year.

E. P. Kehoe, secretary, Banner Grain Company, is believed to have the "flu." He was last in his office on August 6, and may be absent for a few weeks.

The Barnett & Record Company expects by the middle of September to complete the construction of the eight storage tanks which they are building for the Atkinson Milling Company. These eight tanks, with the four interspaces, will supplement the eight tanks already used by the company on the C. M. & St. P. tracks, the tanks now in use having a total capacity of about 160,000 bushels. They expect to reach

the tops of the new ones about August 17, with the cupola structure and roof remaining to be built.

Continental Grain Company, the first of August purchased and took over the 500,000-bushel elevator then known as Pioneer "D", in Minneapolis. It is now named the Continental Elevator. The Continental Grain Company specializes in the mixing and storing of milling wheat. Officers of the firm are H. A. Murphy, president; B. J. Dodge, vice-president; A. B. Marcy, secretary-treasurer.

Clarence E. Lee, one of the wheat salesmen of Quinn-Shepherdson Company, left that firm August 6, and on August 8 left Minneapolis on a trip to Buffalo where he expected to stay about a week at the new plant just built by the International Milling Company. Mr. Lee is to be the wheat buyer for the International Milling Company at Duluth, in connection with their Buffalo plant.

Sanford L. Johnson, Hoover Grain Company, returned to Minneapolis August 6 from a trip of about a month through northern and western Minnesota. Mr. Johnson reports that oats, both early and late, are very badly affected by rust, and that all late wheat will suffer similarly.

Crown Elevator Company, Inc., suffered a loss estimated at \$250,000 when fire destroyed their elevator at Second Avenue and Ninth Street, S. E., Minneapolis, together with about 25,000 bushels of grain. Three employees, who were in the building when the fire began to sweep through the interior, reported that the flames were started by a dust explosion. A general 3-11 alarm brought out all of the fire apparatus in town, and prevented the flames from spreading to other property.

LOUISVILLE

A. W. WILLIAMS CORRESPONDENT

THE Louisville grain trade is finding things a trifle slow. Corn has gone so high that dealers are afraid to buy at the price, while oats are up also. With wheat at \$1.40 and corn at \$1.20 rumors are heard that corn will go as high as wheat, and the latest Federal reports indicate a short corn crop, which is encouraging the strong market.

Local dealers are pricing No. 2 White or Yellow corn at \$1.20; No. 2 Red wheat is \$1.40, and rye, \$1.08. Oats are 53 cents for No. 2 White; and 51 cents for No. 3. That is a rather fancy market and the retailers can't be blamed for being afraid of it. Seed demand for rye, turf oats and wheat looks promising this fall. Some of the elevators have been fanning rye for seed use. Seedsmen are asking from \$1.25 to \$1.40 a bushel for Rosen rye for fall planting in small lots. There is a world of wheat planting in prospect this fall on tobacco and corn land that wasn't planted this spring on account of rainy weather. It looks like a considerable winter acreage in rye, wheat, and turf oats.

Hay production this year was large and prices are lower than for years past. No. 1 Timothy, is \$16.

Clell Coleman, who has served nearly four years as Kentucky Commissioner of Agriculture, has received the Democratic nomination for the post of state auditor. Mr. Coleman is from Harrodsburg, Ky., having grain and feed establishments at that point and also at Burgin, Ky., operated as Clell Coleman & Sons.

Fred S. Reigel, for 15 years general freight agent for the Southern Railway System, with headquarters at Cincinnati, formerly of Louisville, has resigned from the road to become traffic manager for the Rossville Company of Lawrenceburg, Ind., manufacturers of alcohol, and feeds. He will report September 1.

Oscar Fenley, president of the Kentucky Public Elevator Company, Louisville, is spending the summer in Wequetonsing, Mich., with Mrs. Fenley.

Construction of the new elevator plant of the Ballard & Ballard Company, flour millers at Louisville, which was to have been complete by mid-July or the first of August, will hardly be ready before August 25, or September 1. The company now has about 350,000 bushels of wheat in the Kentucky Public Elevator Company plant, and its own storage filled up and has had to quit buying wheat until the elevator is ready to receive it.

Grain crops in Kentucky are quite small this year, and corn prospect is poor. Much corn was planted late, and unless there is very late cold weather, it is claimed it can't mature, and that a good deal of it will be cut up and stored in silos. The state agricultural department is favoring use of silos this year, as all feeds promise to be high. The state wheat

crop was estimated at 3,682,000 bushels, a slump of 1,091,000 bushels over last year. Acreage harvested was reported at 30 per cent greater, but condition much poorer. The corn crop is estimated at 2,762,000 acres, or 10 per cent less than last year, figured to make 58,698,000 bushels, provided there is favorable fall weather. Oats showed but 2,688,000 bushels, as against 6,346,000 last year; rye, 172,000 bushels, as against 279,000 last year; barley, 149,000 as compared with 231,000; hay, 1,808,000 tons as against 1,526,000 tons last year. There are slumps of between 25 and 50 per cent in tobacco; and also slumps in sweet and Irish potatoes, fruits, and other items. Account of smaller corn and tobacco acreage this year, due to bad weather at planting seasons, indications are for planting a large wheat acreage this year. A comparatively wet summer is resulting in soil being in fine condition for fall crop planting, provided it continues at nearly as good as it has been.

J. L. Marshall, president and general manager of the Kentucky Feed & Grain Company, in 12 years has built up a considerable business. In 1915 the business was organized to produce sweet feeds and poultry feeds, doing a jobbing business. In 1920 it occupied a considerable plant at 1361 South Fifteenth Street, where it has warehouse, mills and elevator. It is manufacturing complete lines of sweet and poultry feeds, and the product is being disposed of in 15 states.

The Associated Industries of Kentucky, composed of the large manufacturers, in a recent bulletin called attention to the effort of the Ballard & Ballard Company, Louisville, to aid the cotton people of the South, having used cotton bags exclusively this season in packing poultry and dairy feeds. The plant has a capacity of 3,000 barrels of flour, and 250 tons of poultry and dairy feeds daily. It requires 6,250 yards of 40-inch sheetings to supply its bag manufacturing department with its daily requirements.

It is reported from the Memphis district that the cottonseed oil crushers are getting their plants in shape for a normal handling of cottonseed this fall. With a crop estimated at around 14,500,000 bales of cotton, there should be about normal supplies of seed available for production of all meal, hulls, etc.

The Kentucky Public Elevator Company reported 475,000 bushels of wheat on storage; 35,000 of corn, and some rye and oats on track that had not been unloaded. It was reported that inbound movement was good, but that there wasn't much moving out at present prices. Ed Scheer, Bingham Hewett Grain Company, reported that although there had been a strong market for 30 days, which should encourage buying, prices had been too strong for active selling, as retailers don't believe in the present prices.

For the first time in years Henry Freuchtenicht, local grain man and elevator operator, will probably not show heavy draft horses in the rings at the Kentucky State Fair. His old teams were getting old, and out of shape for showing, and he disposed of the teams which he formerly showed, and hasn't been able to replace them with the kind of young stock he desired. For years he showed handsome big grays in two and four horse combinations, and won many prizes. The fair this year will be the week of September 12.

DULUTH

S. J. SCHULTE - CORRESPONDENT

A NOTABLE change on this market came in the appointment of F. M. Schutte to the position of deputy state grain inspector here. Mr. Schutte has had a long connection in the grain trade, having entered the state grain inspection department at Minneapolis in 1901. He came to Duluth in 1908 and he has during the last 19 years held the position of state weighmaster. He is honored in the fact that under his new appointment he retains the state weighmaster office and he also has supervision over the other state grain trade departments, including the sampling bureau and the protein testing laboratory. Mr. Schutte looks forward to the coming fall and winter being active in the state grain inspection department in view of the present outlook for an average Spring wheat and Durum crop, and for heavy yields of rye and flaxseed. An adequate force will be maintained in the inspection department, he said, to take care of marketing operations, the aim being to give prompt service on the arrival of the grain on track here.

W. W. Bradbury, in charge of William Dalrymple's office, also came back an optimist regarding crop conditions over North Dakota. As he saw it, the Spring wheat crop is too far advanced over many sections to be greatly affected by rust conditions. What impressed him most was the bountiful rye crop that has been raised this season over the Northwest. With

growers of that grain accustomed to find a market for it here owing to its disposition being mainly in export channels, receivers are counting upon handling heavy receipts of that grain this fall and winter.

The election of A. C. Carroll, of the Hallett & Carey Company, to membership on the Duluth Board of Trade marked the only business change in this market during the last month. Mr. Carroll had been bookkeeper in that firm's office here and he has been warmly congratulated by a wide circle of business and personal friends upon his promotion as an operator on the trading floor.

A substantial movement of Winter wheat from Omaha, on account of the Washburn Crosby Company, has set in to this market. The grain is being received at Great Northern elevators. The Cargill Elevator Company is also figuring upon handling a large quantity of Winter wheat for another eastern milling company and the amount received by the two elevator companies is expected to reach a heavy total. Considerable Winter wheat was carried in the elevators here last season on eastern millers' account and a considerable proportion of it was not loaded out for Buffalo until this spring.

Duluth grain men who had been on inspection trips over Minnesota, North and South Dakota and Montana, all returned home feeling enthusiastic regarding the crop outlook. Hi Jergens, representative of the Quinn-Shepherdson Company, on this market, said he was unable up to 10 days ago to find anything alarming regarding the possibility of damage from black rust apart from a section of the Red River Valley where it was seeded late and became weedy owing to too frequent rains.

Holders of Durum wheat of good milling grade carrying a fair percentage of protein have been sitting "pretty" lately as the cleaning up of supplies in the elevators left millers short of that grain to cover flour milling contracts and that brought about active scrambling for it at times during the last 10 days. Liberal premiums were paid to promote the movement this way of any Durum remaining in growers' hands. That farmers in most districts have swept their bins was regarded as evidenced in the number of bulk-headed cars that have been arriving on track during the last two weeks. The outlook for an average crop of Durum upon a larger acreage seeded to it has helped to bolster up sentiment in grain handling circles here. Active bidding for high grade Durum by millers for the manufacture of special flour products is expected to cut a considerable figure in promoting higher prices for it, just as was the case last winter. History in that respect is expected to repeat itself this fall. Much of the credit for the obtaining of liberal prices for Durum wheat here is credited to the establishing of the state protein testing laboratory at this point two years ago. Buyers have learned almost invariably to look for the protein test in making their bids upon grain offered on the sample tables from day to day. The trade has awaited with great anxiety the outcome of the season's harvest in Spring wheat, Durum wheat and other grains owing to the persistent rust reports that have been emanating from over the producing districts and there will be many signs of relief when dealers are able to find out exactly where they stand after the grain has been finally threshed.

R. M. White, of the White Grain Company, has been away upon a business trip by motor during the last month through Iowa, Kansas and Nebraska. In a letter mailed to his office he expressed gratification over conditions over the Middle West. He noted that Nebraska had been favored with its best crop of wheat in several years and that grain men over that state are enthusiastic over the certainty of a good fall trade ahead of them in taking care of farmers' marketing.

R. C. Schiller, manager of the Occident Elevator Company, here is looking forward to handling a good movement of Spring wheat and Durum wheat this way during the fall and winter if the crop outturns come anywhere near up to expectations. He contends that under any conditions buyers on the Duluth market will offer stiff competition to Minneapolis millers in picking up Spring wheat and that the prospects now are that liberal premiums for choice grain will be paid during the present crop year. Buffalo millers he pointed out, are in position to absorb round quantities Spring wheat to bring their flours up to grades, and that in the past they have been forced to import large quantities of Canadian wheats for that purpose.

W. C. Mitchell & Co., have received samples of badly frosted wheat from their Winnipeg connections. That is accepted as evidence that the frost reported on August 8 did considerable damage in the districts where they occurred.

Said H. F. Salyards of Ely-Salyards & Co., "Though we are not going to get the bumper crop of Spring wheat and Durum this season that we looked for, I think grain handlers on the Duluth market will have a good season's business ahead of them. We would

have all felt happy though if farmers over our Northwest had harvested the crop that was promised before it was hit by black rust. The promised 25 per cent extra yield would have made a vast difference to all hands, including farmers, commission men and the elevators."

E. A. Vivian, spot wheat buyer for the Consolidated Elevator Company here, has returned from a three weeks' vacation at a northern Minnesota lake resort. He is credited with spinning some tall yarns regarding his fishing exploits while away.

Ward Brown, for many years connected with the milling and grain trade on this market, but now occupying a responsible position with a Kansas City house, was accorded a warm reception by his friends on the Board here on looking in upon them during his vacation. In addition to his other attainments, Ward is regarded as a good sport. Back about 13 years ago, he battled on the Duluth Universal Milling Company's hockey team here.

As a result of a steady run of shipments, stocks of all grains in Duluth and Superior elevators as on August 10 were brought down to approximately 3,600,000 bushels, including 1,400,000 bushels of wheat; 1,127,000 bushels of oats; 255,000 bushels of rye; 250,000 bushels of barley and 629,000 bushels of flaxseed. That total compares with around 32,000,000 bushels held in the elevators at this point at the opening of navigation.

Elevator and commission houses here are reported to have considerable boat tonnage tied up for early loading this fall. Buffalo millers are said to have been in the market for space, and a liberal movement of rye is looked for to go into export trade channels.

W. D. Jones, manager of Hallett & Carey Company's office here, has been coming in for much joshing by the boys lately as a result of the recent bulges in flaxseed prices. "Bill" has all along been a consistent bear on flaxseed as his figures have led him to look for a Northwest yield of around 27,000,000 bushels for the season. Bulls in that market are credited with keeping close tab on Jones operations in the seed market hoping to pilory him on a short trades.

MILWAUKEE

C. O. SKINROD - CORRESPONDENT

JULY grain trade at Milwaukee was nothing to crow about judging from the declines in offerings of some of the leading grains. The report of trade for the last month indicates the irregular tendencies of the trade. Oats, barley, wheat and rye receipts were all smaller than a year ago, but corn receipts were over 600,000 bushels compared with 260,000 in July last year.

Despite all the ups and downs and cross currents in the grain trade, the Milwaukee Chamber of Commerce, through Secretary Harry A. Plumb's office, has just issued a report showing that in seven months the local grain trade has increased about 935 car loads over a year ago, or in excess of 8 per cent.

Wisconsin is all "het up" about the possibility of finding corn borers in the state due to the frequent reports of the pest being found in Illinois and other adjoining states. Sixteen field scouts, eight of them from the United States Department of Agriculture and a like number from the Wisconsin state department of agriculture, have gone into the southern and southeastern sections of the state to search for traces of the European borer.

As yet no authentic cases of the pest have come to the attention of the state. The departments of agriculture are, however, making extensive preparation to combat an invasion of the borer in case it should make its appearance.

The rate of interest on advances at the Milwaukee Chamber of Commerce for August has again been fixed by the Finance Committee at 6 per cent.

A. L. Flanagan, second vice-president of the Milwaukee Chamber of Commerce, declares that according to authentic reports he has received the outlook for a large oats crop in the Northwest is not as good as once expected.

"The crop of small grains in general, is considerably better this year than last, with South Dakota reporting a very favorable crop of all grains as against their bad crop failure last year," said Mr. Flanagan.

"Oats in sections of Minnesota and Iowa, I find are not running as good as expected owing to extensive rust damage. Some oats is running as high as 32 pounds to the bushel, and other farmers report oats weight down as low as 22 pounds per bushel, indicat-

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ing wide range of weights and much below the standard weight because of light quality. Some yields are excellent, going up to 60 bushels per acre and others show a return of much less than that."

* * *

For the first time in the 70 years of existence of the Milwaukee Chamber of Commerce, death notices of a father and son hang on the bulletin board of the exchange. Two black framed cards bearing the names of John Buerger who died on July 22 and of his son J. F. B. Buerger who died nine days later hang side by side. Both were members of the exchange.

John F. B. Buerger who was 52 years old, was president of the Buerger Commission Company. He died of pulmonary tuberculosis at Muirdale Sanitarium after an illness of about two years. Mr. Buerger was forced to retire two years ago because of failing health. He was also president of the Crystal Spring Brook Trout Hatchery Company. He was formerly connected with the Buerger-Crittenden Milling company and with other manufacturing concerns.

For 30 years Mr. Buerger was a member of the Chamber of Commerce and he was also at one time a director. He was born at Theresa, Wis., and is survived by his widow and a daughter, Beatrice. Burial was at Lomira.

John Buerger, who died at the age of 82, was one of the oldest members of the Chamber of Commerce and died at his home at 539 Lake Drive after an illness of only about two months.

Mr. Buerger came to America from Germany in 1866. At that time he was a building contractor and founded the village of Lomira, Wis., building the first church and the first school house in the town.

Later he built grain elevators and became interested in the grain business. In 1886 he joined the Milwaukee Chamber of Commerce, or about 41 years ago, although at that time he was running a malting business at Fond du Lac.

He organized the Buerger Commission Company in Milwaukee and made his home in the city. He soon began to specialize in barley and thus became known as the "barley king" on the board. He was survived by the son J. F. B. Buerger who died nine days later, and also by two daughters.

Harry A. Plumb, secretary of the Chamber of Commerce paid a glowing tribute to Mr. Buerger, declaring "He was a member here for many years and was a great favorite among all the men. He was noted for his original wit and dry humor. Although he never held any offices on the exchange, he was one of the most active members of the local Chamber of Commerce."

The body was taken back to the family burying plot at Lomira, Wis., just as his son was buried there a few days later.

Not in the memory of the oldest members of the board have a father and son among members died almost at the same time.

* * *

Capt. E. E. Taylor has been appointed as the general manager of the Goodrich Transit line and will have complete control of all departments. Capt. Taylor has been identified with the Goodrich line for a number of years and has a wide circle of friends in Milwaukee.

* * *

Enterprising Milwaukee grain dealers are again stimulating southwestern receipts of wheat in this city for direct shipments to Europe. The major portion of the wheat that has come here for shipment out by lake direct to Europe and part of it for transshipment at Colburn, Ont., has come from Omaha.

* * *

"The Nebraska grain crop is much larger than a year ago," P. P. Donahue explained in describing the increasing receipts of southwestern grain. "Grain from Omaha can be shipped by rail cheaper to Milwaukee than to the Gulf of Mexico shipping ports. In fact, the port of Milwaukee is the natural eastern outlet for such grain." Extreme southwestern points, on the other hand, Mr. Donahue added, can find a cheaper shipping outlet at Galveston, Texas, and at New Orleans. Boats with a capacity of 100,000 bushels can load grain at Milwaukee elevators direct for Europe but those of larger capacity have to unload their cargoes for transshipment.

* * *

William George Bruce has been re-elected as president of the Milwaukee Harbor Commission at the annual meeting of that body just held. He has been head of the organization since the commission was started in 1912. Mr. Bruce is regarded as a national authority on all lake navigation and port subjects pertaining to the Great Lakes.

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Mark Hager and Frank A. Prei have been elected members of the Milwaukee Chamber of Commerce.

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Elevator "E", owned by the Cargill Elevator Company, has been declared regular for the storage and delivery of grain and flax seed for the fiscal year beginning on August 1.

* * *

A move to close the Menomonee Canal, one of the branches of the Milwaukee Harbor system, is being fought strenuously by the Milwaukee Harbor Com-

mission. Ocean going freighters from all parts of the world are going to be docked in the city and will need an increasing amount of room, so that industries will spring up on all the water sites available in the city, the Commission says.

* * *

The commissioner of agriculture, Walter A. Duffy, says Wisconsin will suffer very little from stem rust this year. He reports that the grain crops are now so far along that any material loss from rust damage is now out of the question, in fact, he believes the loss from rust will be the lightest in Wisconsin in many years.

* * *

A. E. Bush, representative of the Milwaukee branch of the Cargill Grain Company, has just been elected to membership in the Chamber of Commerce. He will succeed Duane L. Norby who has been transferred to the Toledo offices of the Cargill grain organization.

* * *

(Correction.) The AMERICAN ELEVATOR AND GRAIN TRADE last month stated that Harry Berger, who has been in ill health for a number of years, died recently at Los Angeles and was buried at Vincennes, Ind. This item should have read Mrs. Harry Berger. The couple left Milwaukee about 15 years ago after Mr. Berger had served a long connection with the Berger-Crittenden Milling Company.



UPWARDS of 5,000,000 bushels of grain destined for New York City and other Atlantic Coast ports have been diverted from the New York State Barge Canal to rail lines owing to a serious break in the state waterway at Eagle Harbor near Albion. Officials of barge canal transportation companies, who are facing heavy losses because of the accident, are severe in their criticism of state authorities for not conducting frequent inspections of the canal and correcting possible breaks before they result in accidents which cripple transportation. The break in the canal bank early this month will tie up the state waterway for at least three weeks with a possibility of even a longer delay. Large fleets of barges carrying grain to the seaboard have been forced to return to Buffalo and have their cargoes unloaded at the elevators for reshipment by rail. There will be considerable adjustments to be made between shippers and canal operators concerning who will pay the cost of the towing and the unloading.

* * *

Just before the break at Eagle Harbor which has flooded some of the low lands to a depth of 75 feet, the rate on the transportation of grain over the canal between Buffalo and New York was about 4 cents a bushel compared with 2½ cents 10 days before. After six weeks of comparative inactivity on the state waterway and with only an occasional grain cargo, there was quite an influx of grain at the terminal elevators from up-lake ports and much of this grain was consigned to New York via the canal because of the low rates. There was a rush for boats with the result that the rates jumped from about 2½ cents to 4 cents within a week. On the morning of the break in the canal there was more than 300,000 bushels loaded on boats with other boats ready to take on cargoes.

* * *

Shipments of grain from Buffalo terminal elevators to Montreal via the Welland Ship Canal have been very scarce during the past month. Receipts of grain from ports on Lakes Michigan and Superior are unusually small for this season of the year and the rates for available cargoes are so low that many steamship lines are refusing to take cargoes, saying it is cheaper to keep the boats idle than to operate under present conditions.

* * *

Grain shippers at Lake Michigan ports were in the market early this month for tonnage for early loading now that the new crop from the Southwest has started to find its way toward the shipping centers. Large boats are being chartered from South Chicago to Buffalo at 1½ cents while only 4½ cents is being paid for storage grain tonnage from Lake Superior ports to Buffalo. Boat owners are demanding 5 cents for winter storage at Buffalo but shippers are holding off in the belief that they will be able to make favorable contracts later in the season. There has been a slight increase in grain stored at Port Arthur and Fort William for shipment to eastern points. On the first of August elevators at Fort William and Port Arthur on Lake Superior held 28,031,654 bushels as compared with 20,258,658 on the same date last year.

* * *

It is reported in Buffalo that definite work now is under way in Toronto to complete the organization of the grain pool in the province of Ontario. At centers where loading will take place committees of three members are being chosen and each district in the

province will name a representative to the advisory board of the provincial grain pool. This advisory board is expected to meet in Toronto and confer with Dominion bankers to settle the initial payment on the year's grain crop.

* * *

About 100 grain dealers from all points in the state of Pennsylvania were in Buffalo early this month for a 2-day conference and entertainment program arranged for them by the Ralston-Purina Company of St. Louis. Headquarters of the conference were at the Hotel Statler. Albert S. Schindler of St. Louis, sales manager of the company, had charge of the program and others on the committee included Leslie D. Mason, sales manager for Ohio and Pennsylvania, and G. M. Philpott of St. Louis, production manager.

* * *

Thomas H. Hanrahan, general chairman of the Buffalo Harbor Improvement Commission, has appointed 10 special committees to assist in preparing recommendations for the improvement of terminal facilities and other changes in the harbor which would react to the benefit of grain elevator and other interests along the waterfront. Among those who are working in co-operation with Mr. Hanrahan and the committee are John J. Rammacher of the Eastern Grain, Mill & Elevator Corporation, Adam E. Cornelius of Boland & Cornelius, grain vessel operators; Edwin T. Douglass, who for many years has been actively identified with grain and elevator interests at Buffalo; George C. Lehman, former secretary of the Buffalo Chamber of Commerce, and others.

* * *

The United States Tariff Commission's investigation of the cost of crushing flaxseed in this country and abroad has reached Buffalo, the center of the linseed oil industry of the country. R. H. Craig, chemical expert and V. C. Wooley, economist, head of the delegation, is making the second study in the last five years. Application for a reduction in the duty on more than a dozen vegetable oils was made by the Bureau of Raw Materials in 1922, after the passage of the flexible tariff law. The Commission was ordered to make an investigation the following year. A committee of six visited the principal cities of the United States and England. A report on the industry was delayed until last year when the Commission, in a divided report, recommended a slight reduction in the tariff. The second study now is being made.

GRAIN NEWS FROM BOSTON

By L. C. BREED

Branford Farms Grist Mills, Inc., is a new company which will engage in the grain business at Groton, Conn. It has been incorporated with a capital stock of \$50,000.

* * *

The grain elevator of J. Cushing & Co., situated at South Framingham, Mass., recently was destroyed by fire. The loss was estimated at \$75,000.

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F. C. Maynard, formerly of Maynard & MacBrine, and E. F. Clapham have formed a new company under the style of Maynard & Clapham to conduct a brokerage business in grain. Both of the members of the new concern have been engaged in the brokerage business in Boston for many years.

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Newton MacLeod, who for many years has been connected with Knowles & Son, is now conducting business on his own account, having been appointed representative for western flour mills.

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Three buildings of the H. K. Webster Company, Lawrence, Mass., used as warehouses for storage of grain and feed, recently were destroyed by fire, but the elevators were saved through prompt action. The loss was estimated at \$75,000 fully covered by insurance.

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The demand in New England for corn and oats during July, though at times quiet, on the whole the sales were normal for the season. The sale of feed-stuffs was not up to the average for July owing to the unusually good pasturage which this summer is very general in this section.

* * *

In the Boston market, top grades of hay have been moving fairly well during July. Medium to low grades, which, as usual, comprised the bulk of the receipts, were slow of sale and prices at times were weak. The outlook in New England for the coming hay crop is excellent. Receipts of hay at Boston for the month of July were 210 cars. Straw 12 cars.

* * *

Stocks of grain at Boston in regular elevators as of July 30, were as follows: Wheat, 125,929 bushels; corn, 1,038 bushels; oats, 30,754 bushels; rye, 1,708 bushels.

* * *

Exports of grain from Boston recorded by the Boston Grain & Flour Exchange, steamer *Winfredian* for Liverpool, 80,000 bushels wheat.

* * *

As tabulated by the Boston Grain & Flour Exchange, the receipts of grain at Boston during the month of

THE AMERICAN ELEVATOR AND GRAIN TRADE

Forty-Sixth Year

July were as follows: Wheat, 2,800 bushels; oats, 97,725 bushels; rye, 1,625 bushels; malt, 824 bushels; mill feed, 85 tons; oatmeal, 2,690 cases; ditto, 300 sacks.

Owing to excellent pasturage and the prospect for a large hay crop, Boston seed men do not expect to have any demand for millet this season.

Among the visitors to the Exchange during July, outside of New England, were the following: J. A. Low, Chicago, Ill.; E. W. S. Knudsen, New York City; A. L. Goetzmann, Kansas City, Mo.; Charles T. Collier, El Centro, Calif.; I. L. Williamson, Salt Lake City, Utah; W. G. Husband, Chicago, Ill.; Edgar Thierwichter, Oak Harbor, Ohio; A. J. Spellacy, San Francisco, Calif.; L. B. Lovitt, Memphis, Tenn.

M. J. Caplan of M. J. Caplan Company, Inc., Lawrence, Mass., has been elected an associate member Boston Grain & Flour Exchange.

RECEIPTS AND SHIPMENTS

Following are receipts and shipments of grain, etc., at the leading terminal markets in the United States for July:

BALTIMORE—Reported by Jas. B. Hessong, Secretary of the Chamber of Commerce:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	2,036,630	2,130,208	560,513
Corn, bus...	9,117	51,014	75,039
Oats, bus...	64,323	129,309	20,000
Barley, bus...	1,605	2,889	96,589
Rye, bus...	2,874	10,075	
Malt, bus...	13,288	10,112	
Millfeed, tons...	1,042	1,767	
Straw, tons...	48	15	
Hay, tons...	389	1,107	
Flour, bbls...	80,316	86,387	17,688

CHICAGO—Reported by J. J. Fones, Secretary of the Board of Trade:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	8,509,000	7,413,000	2,840,000
Corn, bus...	5,489,000	4,051,000	4,988,000
Oats, bus...	2,902,000	2,719,000	1,661,000
Barley, bus...	319,000	395,000	100,000
Rye, bus...	766,000	75,000	10,000
Timothy Seed, lbs...	516,000	672,000	348,000
Clover Seed, lbs...		107,000	74,000
Other Grass Seed, lbs...	451,000	843,000	240,000
Flax Seed, bus...	123,000	348,000	1,000
Hay, tons...	9,118	10,548	698
Flour, bbls...	913,000	1,158,000	664,000

CINCINNATI—Reported by J. A. Hallam, Chief Inspector of the Board of Trade, Inc.:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	1,503,600	1,022,000	190,400
Shelled Corn, bus...	309,400	436,800	330,400
Oats, bus...	226,000	212,000	172,000
Rye, bus...	9,800	11,200	1,400
Grain Sorghums, bus...	4,200	5,600	
Ear Corn, bus...	3,000	13,000	
Feed, tons...	120	1,290	
Hay, tons...	2,937	4,367	

DENVER—Reported by H. G. Mundhenk, Secretary of the Grain Exchange:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	237,000	478,500	7,500
Corn, bus...	204,600	161,200	48,050
Oats, bus...	86,000	70,000	40,000
Barley, bus...	22,100	34,000	
Rye, bus...		1,500	
Hay, tons...	1,850	280	
Beans, C.L...	9	48	81

DULUTH—Reported by Chas. F. MacDonald, Secretary of the Board of Trade:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	3,054,410	2,026,577	3,462,401
Corn, bus...	3,698	5,725	1,347
Oats, bus...	17,305	303,758	668,199
Barley, bus...	939,974	156,469	998,066
Rye, bus...	39,916	278,539	251,781
Flax Seed, bus...	289,144	159,264	478,767
Flour, bbls...	586,470	649,265	675,570

PORT WILLIAM, ONT.—Reported by E. A. Ursell, Statistician of the Board of Grain Commissioners for Canada:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	10,679,155	6,404,091	9,020,888
Corn, bus...	1,559	4,184	1,559
Oats, bus...	779,288	3,309,158	302,902
Barley, bus...	2,006,809	1,983,290	1,426,703
Rye, bus...	233,553	221,581	33,681
Flax Seed, bus...	347,028	268,650	391,028
Flour, bbls...	586,470	649,265	675,570

INDIANAPOLIS—Reported by Wm. H. Howard, Secretary of the Board of Trade:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	1,508,000	1,407,000	494,000
Corn, bus...	1,045,000	1,133,000	731,000
Oats, bus...	576,000	564,000	516,000
Rye, bus...	1,600		520,000
Flour, bbls...			1,600
Mfg.	31,765	35,757	

KANSAS CITY—Reported by W. R. Scott, Secretary of the Board of Trade:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	19,538,400	31,949,400	8,526,000
Corn, bus...	762,000	1,003,500	748,500
Oats, bus...	192,000	192,000	148,000
Barley, bus...	41,600	6,400	11,200
Rye, bus...	16,500	34,500	27,000
Bran & Shorts, tons...	4,840	7,040	12,620
Kafir-Milo, Corn, bus...	248,600	161,700	241,000
Hay, tons...	17,844	20,760	8,268
Flour, bbls...	58,825	88,075	627,575

LOS ANGELES—Reported by M. S. Thiebaud, Secretary of the Grain Exchange:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, carloads...	405	314	
Corn, carloads...	218	299	
Oats, carloads...	23	66	
Barley, carloads...	199	315	
Milo, carloads...	27	32	
Cereals, carloads...	92	81	
Poultry Feed, carloads...	14	51	
Linseed, carloads...	8	4	
Hay, carloads...	750	751	
Kafir Corn, carloads...	13	5	
Bran, carloads...	80	191	
Flour, carloads...	128	154	

MILWAUKEE—Reported by H. A. Plumb, Secretary of the Chamber of Commerce:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	1,114,560	1,904,030	827,760
Corn, bus...	818,440	260,080	687,241
Oats, bus...	685,400	1,205,100	1,127,853
Barley, bus...	137,780	388,440	93,439
Rye, bus...	21,600	49,620	31,468
Timothy Seed, lbs...		104,000	
Clover Seed, lbs...			60,000
Flax Seed, bushels...	17,160	28,600	
Hay, tons...	466	588	180
Flour, bbls...	212,214	165,760	33,859

MINNEAPOLIS—Reported by G. W. Maschke, Statistician of the Chamber of Commerce:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	4,787,630	8,610,280	2,599,140
Corn, bus...	895,830	626,450	543,750
Oats, bus...	502,930	638,800	1,744,480
Barley, bus...	285,830	407,350	416,980
Rye, bus...	145,400	237,430	185,140
Flax Seed, bushels...	145,000	293,820	124,970
Hay, tons...	695	1,816	94
Flour, bbls...	26,388	21,772	933,382

MONTREAL, QUEBEC—Reported by J. Stanley Cook, Secretary of the Board of Trade:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	10,217,457	8,988,990	8,958,819
Corn, bus...	27,175	31,046	14,223
Oats, bus...	778,228	4,796,749	1,307,430
Barley, bus...	449,679	1,968,940	1,102,150
Rye, bus...	973,220	1,861,233	2,513,544
Flax Seed, bus...	124,890	69,661	
Hay, bales...	73,121	64,760	58,426
Flour, bbls...	255,444	267,916	303,932

NEW ORLEANS—Reported by S. P. Fears, Chf. Gr. Insptr. and Weighmaster of the Board of Trade, Ltd.:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	134	503	315,656
Corn, bus...	104	72	385,266
Oats, bus...	23	73	126,004
Barley, bus...	1	3	
Rye, bus...		7	
Grain Sorghums, bus...	2	4	

NEW YORK CITY—Reported by H. Heinzer, Statistician of the Produce Exchange:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	1,840,400	4,427,000	2,299,000
Corn, bus...	42,500	225,659	
Oats, bus...	241,000	1,152,000	136,000
Barley, bus...	733,700	1,357,000	504,000
Rye, bus...	30,500	96,170	77,000
Timothy Seed, lbs...	180		
Clover Seed, bus...		328	265
Flax Seed, bus...	293,000	292,000	
Hay, tons...	2,453	7,613	
Flour, bbls...	702,400	924,104	175,000

OMAHA—Reported by F. P. Manchester, Secretary of the Omaha Grain Exchange:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	8,774,400	5,373,200	3,502,800
Corn, bus...	931,000	1,323,000	1,456,000
Oats, bus...	276,000	766,000	348,000
Barley, bus...	16,000	28,800	1,600
Rye, bus...	64,400	88,200	54,600
Flax Seed, bus...			81,200

PEORIA—Reported by John R. Lofgren, Secretary of the Board of Trade:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	120,550	197,600	108,750
Corn, bus...	1,929,275	1,627,350	1,212,850
Oats, bus...	652,600	679,600	441,450
Barley, bus...	140,000	83,400	14,000
Timothy Seed, lbs...	21,460	20,220	30,956
Hay, tons...	3,920	1,580	150
Flour, bbls...	191,300	173,500	206,400

PHILADELPHIA—Reported by A. B. Clemmer, Secretary of the Commercial Exchange:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	705,757	618,316	532,307
Corn, bus...	18,498	19,160	
Oats, bus...	84,957	80,801	
Barley, bus...	1,049	2,786	
Rye, bus...	1,254		
Flour, bbls...	153,540	130,220	6,513

PORTLAND, ORE.—Reported by R. J. Patterson, Manager of the Merchants' Exchange:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	1,323,000	2,369,950	646,384
Corn, bus...	25,500	147,500	89
Oats, bus...	32,500	132,500	6,392
Barley, bus...	25,600	10,800	2
Rye, bus...	1,500	4,500	

ST. LOUIS—Reported by Charles Rippin, Secretary of the Merchants' Exchange:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, bus...	4,390,400	7,606,200	1,282,400
Corn, bus...	1,568,000	2,147,600	1,100,000
Oats, bus...	1,892,000	1,426,000	1,454,000
Rye, bus...	11,700	9,100	1,300
Barley, bus...	11,200	32,000	16,000
Kafir, bus...	111,600	34,800	20,400
Hay, tons...	5,028	7,500	1,164
Flour, bbls...	432,540	424,970	318,319

SAN FRANCISCO—Reported by J. J. Sullivan, Chief Inspector of the Chamber of Commerce:

Receipts		Shipments	
1927	1926	1927	1926
Wheat, tons...	7,580	6,718	
Corn, tons...	440	1,040	
Oats, tons...	2,577	1,431	
Barley, tons...	48,902	45,041	
Bran, tons...	416	314	
Beans, sacks...	19,024	29,748	
Foreign Beans, sacks...	14,687	5,812	
Hay, tons...	5,152	6,081	

SUPERIOR—Reported by J. W. Conner, Secretary of the Wisconsin Grain & Warehouse Commission:

	Receipts		Shipments	
	1927	1926	1927	1926
Wheat, bus.	2,211,383	1,289,373	1,904,092	851,491
Bonded Wheat, bus.	59,023	16,687	45,087	107,868
Bonded Oats, bus.	6,688	3,824	21,000
Bonded Rye, bus.	1,080	7,174
Bonded Barley, bus.	35,649	13,044	28,304	117,221
Bonded Flax, bus.	2,018
Corn, bus.	2,600	10,058
Oats, bus.	19,944	200,994	341,248	770,003
Rye, bus.	282,200	208,539	163,701	1,014,041
Barley, bus.	848,386	146,929	1,017,209	184,471
Flax, bus.	160,445	128,621	124,364	35,974

Dealing in Grain Futures

A Discussion of the Various Types of Hedging and the Economic Effect of Speculation

By EDWARD JEROME DIES

Author of "The Wheat Pit," "Solving the Farm Riddle," etc.

GRAIN exchanges as they function today constitute one of the miracles of modern commerce. Slowly, quietly they have passed through an evolutionary period in which the machinery of marketing has been overhauled. New parts have replaced those that had weakened. And the whole system has been geared up to keep pace with the needs of agriculture and commerce.

Modern grain exchanges are the product of the last 60 years. They were born of an economic need. They have performed a difficult and trying task in the face of a shifting, growing agriculture and an ever-expanding commerce. During the long period of groping with the ponderous problem of distributing the grain crop over the world, the exchanges blundered, just as all other great industries blundered, and they suffered from imperfections, just as all other big industries suffered.

But the exchanges continued, with hardly a pause, their long uphill pull to higher efficiency. They finally attained an enviable goal, that of marketing the farmer's wheat at a lower cost than exists in the marketing of any other staple farm product. That is the indisputable fact which shines out clearly in court decisions, in statements of the world's leading economists, and in testimony of authorities who have devoted their lives to the study of marketing problems.

But grain marketing always will be a highly controversial subject. The reason is plain. Farmers want high prices for their grain. Labor wants low prices for bread. One or the other of these two forces is forever crying out against the grain exchange, forgetting that the exchange does not make prices but simply registers the price at which the world buys and sells that commodity. Discontent must have an outlet, and the grain exchange has always served as the object of criticism when prices seemed too high or too low.

Crafty politicians have always taken advantage of this situation. When a parade of malcontents started down a highway some politician was ready to leap to the head of the procession and shout: "Come on, boys." It seemed a good vote-getting scheme, just as attacking the railroads in the old days assured a certain following of voters incapable of thinking for themselves.

But the exchanges, like the railroads, have gradually strengthened their position by reason of rendering greater public service. As a result the opportunist in vote-getting has seen his prize shrivel rapidly in recent years.

Despite the progress and efficiency of the modern grain exchange there are still vast numbers of persons who draw their grain marketing education from the sensational headlines depicting the exploits of some irresponsible plunger; or from the startling outbursts of some insignificant and scheming politician, who represents no one but himself, who knows nothing whatever about grain marketing, and whose comment is utterly ridiculous to those familiar with the subject and to those charged with the duty of supervising the affairs of the exchange. But even the uninformed public is growing weary of this type of disturber. Under the progress being made by the Chicago Board of Trade, the largest grain market in the world, and other domestic grain exchanges, the day is not far distant when the exchanges, like the railroads and other major industries, will have placed such agitators in their true light. This end can be attained in but one manner: that is for the exchange to function as nearly 100 per cent perfect as is humanly possible. And today that is the sincere, genuine aim of the grain exchange.

THE BOARD OF TRADE

The Chicago Board of Trade has grown into a great artery through which the life blood of grain commerce is continually throbbing. Contrary to

the general understanding, the Board of Trade neither buys nor sells grain. It only registers prices. It is not organized for private gain. It is an association of some 1,600 reputable business men, many of whom are heads of large firms. The membership includes banks, railroads, steamship companies, elevators, commission houses, brokers, speculators, and the like. The objects of the association, formed three quarters of a century ago, are to maintain an exchange, promote fair dealings and facilitate business. Rigid rules and regulations are laid down and are followed. Serious violation causes expulsion from the exchange and forfeiture of the valuable membership. A glance at the records will show that such action is taken.

It has been suggested that the Chicago Board of Trade does not keep step with progress; that it does not overhaul its machinery frequently enough to stay abreast of changing times. The answer may be found in a study of the records of any single year. These fundamental changes have been made in the past two years:

By a vote of the membership a Business Conduct Committee with wide powers was appointed and its remarkable work in anticipating and preventing emergencies in the market has been praised by market authorities and financiers throughout the nation.

A new modern clearing house system for handling grain trades has been established at great cost and inconvenience, all of which is being amply repaid, however, by reason of the increased efficiency which has eliminated the complaints that now and then were heard under the old system.

A new rule has been adopted which permits non-resident members to vote by mail, thus more fairly distributing the voting power of the exchange throughout the country.

An antiquated state elevator law, long a thorn in the side of the exchange, has been removed and a modern warehouse law enacted.

A rule was adopted which permits the directors to declare the existence of an emergency and limit price fluctuations on grain in time of great market stress.

These are but a few of the numerous fundamental changes brought about in the short space of two years.

GOVERNMENT REGULATION

Besides enforcing its own rigorous rules, the grain exchange functions under the direct supervision of the United States Government. All exchanges must comply with the Grain Futures Act before they can be designated as contract markets. A staff of officials in the Department of Agriculture see to it that the act is in no way violated. Representatives of the Department of Agriculture are stationed at the various contract markets. The Board of Trade is supervised by a staff of Government employes under the able leadership of L. A. Fitz, grain exchange supervisor at Chicago. Officials of the exchange work in close co-operation with these Government officials for the purpose of continually improving the machinery and preventing acts which might be inimical to the proper functioning of the markets.

Under this close co-operation attempted corners, squeezes, market raids, and the like, have become a thing of the past. The Government has the power to inquire into the personal dealings of any trader, and exerts that power whenever such course seems advisable.

The Chicago Board of Trade and the United States Government have long worked in close harmony in an effort to make the marketing machinery 100 per cent efficient. And steady progress has been made.

CASH AND FUTURES

Four hundred million bushels of cash grain, physical grain, are received in the huge Chicago market each year. The figure helps to visualize the giant facilities of the cash grain division of the Board of Trade.

But the futures market of the exchange reflects even greater magnitude. It is the very hub of world grain trade. In this Board of Trade futures market foreign nations anticipate their future needs in the way of bread supplies. Exporters

buy grain for future delivery, as they sell to foreign customers. Country elevators hedge their holdings of actual wheat, and millers and manufacturers use the market constantly for hedging purposes and for acquiring grain to be delivered at some future date.

Hedging, or what might be called price insurance, is the most vital factor in the whole grain distributing system. In order to have hedging facilities there must be a futures market. And in order to have a futures market there must be speculation. The three elements, hedging, futures, and speculation are locked tightly together, and the market would lose its purpose if speculation were to be eliminated.

Speculation consists in buying or selling property with a view to making a profit between the buying and the selling price and in the meantime accepting the risks. This is true in grain just as in real estate or any other commercial endeavor. Gambling consists in wagering money on some future event without any necessary relation to the acquiring or disposal of property. The risks in speculation are those incident to ownership of property. The risks of gambling are unnecessary and artificial risks. They are created for the sheer purpose of deciding bets. It is utterly ridiculous to confuse speculation and gambling. Speculation has been called the greatest incentive to progress that man has ever had. It has been a driving force in every phase of life.

Dr. S. S. Heubner of the University of Pennsylvania in an address took occasion to praise the so-called "gamblers" in the commodity exchanges. "These men take risks that nobody else wants. They save loss to others. Why, the Chicago Board of Trade is the biggest insurance concern in the world.

"Let me show you how you can buy wheat for \$1 a bushel, and sell it at 55 cents a bushel, and make five cents profit. You buy, say 100,000 bushels of wheat, paying \$1 a bushel. You put it in a grain elevator. In other days you waited to sell, and if the price dropped you were wiped out. Today you sell the 100,000 bushels short at \$1 a bushel and you are insured. Some speculator will take the chance, and buy it; if wheat drops to 50 cents a bushel, wholesale, he will have to pay you the other 50 cents a bushel which you lost, and if the retail price is then 55 cents a bushel, you make five cents. Let's praise this speculator instead of condemning him, for he takes a risk that few men would care to assume, and so protects business men from loss. . . .

"Eight out of 10 concerns fail. For instance in 1922 there were nearly 24,000 business failures. Fully two-thirds of this enormous increase was due to vanishing inventories of high-priced goods, bought at the wrong time.

"Now, how will we prevent this loss? One method is 'hedging' such as I have just described in the operations of the grain exchange at Chicago. Don't assail the fellows in the grain and cotton exchanges. They buy and sell futures, but they take risks that other persons don't want. That's what all insurance is."

TRADING IN FUTURES

It may be interesting to explain the precise method of dealing in grain futures from a speculative viewpoint.

Let us suppose that you are a business man with some knowledge of speculative markets, and with some knowledge of grain supplies and demands. After observing general conditions you decide to speculate in wheat.

If you have established no connections with a reputable brokerage house you will perhaps inquire of your banker, and he will recommend a responsible firm holding membership on the Chicago Board of Trade or one of the other large grain exchanges. This commission broker operates under all the rules of the exchange and under the provisions of the Grain Futures Act enforced by the United States Government. He charges a slight commission for executing your order in the grain market. He will make avail-

able to you official statistical matter and other information which may aid you in forming an opinion as to the future course of the market. He will advise, but you will instruct and your orders will be carried out.

This commission merchant who executes your order in the futures market, be it either to buy or to sell, must have some security to protect him from losses. His profit comes only in his commission. The security he requires is called "margins." Now, let us suppose that you decide to purchase 5,000 bushels of wheat, a very small order, for delivery next May, believing that the price in the meantime will be higher and that you may make a profit on your investment. You deposit with your broker from 5 to 10 cents a bushel, depending upon the current price of wheat. He immediately flashes your order to his representative on the floor of the exchange. The order is executed and the confirmation sent to you at once.

When you are ready to sell you simply instruct your broker to sell at a price which you fix upon or at the price then prevailing in the market. Your profit or your loss will be shown in the statement of your account immediately forthcoming from the broker.

The same method is followed in trading in all the various other commodities dealt in on the Chicago Board of Trade, including corn, oats, rye, cotton, lard, dry salted bellies, short ribs and other meats. The margins placed with the broker are based somewhat upon the current value of the commodity, and rather in proportion to the margins mentioned on wheat.

Under the rules, funds for trading must be in the hands of the commission merchants before orders are executed, and may be sent by express, bank drafts or certified checks, or they may be deposited in any responsible bank in the country whose cashier will receipt for the funds and notify the merchant that the money has been deposited to his credit.

There are thousands of business men and others who might be called competent speculators by reason of their knowledge and their financial responsibility who trade regularly in the speculative commodities markets. This widespread competent public speculation, added to the professional speculation creates a liquid futures market broad enough to immediately absorb without undue price fluctuations the enormous volume of hedging by country elevators, millers, exporters, manufacturers, and others incident to the worldwide distribution of a world commodity.

When you eliminate competent speculation you throttle the market and defeat its purpose. Without an open futures market there would develop a chaotic condition of unorganized incompetent speculation, replete with unfair practices; the producer would be gouged, for he would have no way of knowing true values. Virtual control of grain traffic by powerful interests large enough to drive small competitors from the field would soon result.

HEDGING IN GRAIN FUTURES

When you possess a commodity which has been purchased for resale you assume an inevitable risk due to the fluctuations in market value which may occur between the time of purchase and the time of resale. Should the commodity be one whose price changes frequently your risk is greatly increased.

Grain is such a commodity. Values are revised many times during the course of a single hour on the organized exchanges. In the quotations registered by the grain exchanges are reflected the minutest variations in supply and demand conditions. Traders, merchants, millers and speculators representing worldwide interests come together and the figures at which they buy and sell reflect the composite world opinion on grain prices. Crops, weather reports, economic and political conditions are all considered and weighed in the delicate scales of speculative opinion. The market is sensitive to the slightest change in value-determining factors. With nice

precision it reflects the varying world conditions as they are interpreted by men whose judgment, backed by wide experience and expert knowledge, is their chief reliance in a highly important business.

By reason of the accuracy with which prices reflect changing conditions frequent fluctuations are to be expected. Prices swing within a narrow range in normal times, but extreme conditions call forth extreme fluctuations, and it is at such times that the merchant, elevator man, miller, exporter and others who do not wish to speculate but to carry on a stabilized business find the hedging facilities of the grain futures market indispensable. Save for the fact that this hedging protection is available the grain business would be an extremely hazardous one for even the most judicious business man. Without some sort of protection all types of grain dealers would necessarily become daring speculators.

Some commentators have made the important subject of hedging quite involved and quite difficult to grasp. In reality it is very simple. As explained before, the futures market is a place for dealing in contracts for the delivery of grain at some future indicated month. This market is used for hedging, or insurance purposes, by the owner of grain. The purpose of hedging is to avoid a risk known as the speculative risk, which attaches to ownership of any kind of property including wheat. The owner of wheat, whether he is a farmer with wheat in his granary, a farmers elevator company with wheat in the elevator, a terminal elevator with wheat in store, or a miller with wheat on hand for manufacture necessarily speculates upon that wheat. In other words the owner takes the risk of loss through a drop in price and also faces the possibility of a gain through a rise in price. Incidentally, legislation can never destroy speculation as it is something inexorably connected with the ownership of any kind of property.

There are many kinds of farm produce and general merchandise that cannot be hedged by the owner and he must assume the speculative risk. These articles must be merchandised and the wholesaler and the retailer take the risk. Hence a profit must be taken large enough to justify the risk. Losses are inevitable from time to time and a large profit is necessary to absorb such losses.

In the ownership of grain this speculative risk is shifted upon the special class known as speculators who help to make up the futures market.

A TYPICAL HEDGE

Let us take the case of a farmers elevator company. It purchases 10,000 bushels of wheat for cash and stores the wheat at its country elevator. Now, unless that elevator company immediately hedged this wheat in the futures market it would be speculating on an enormous scale. But with its wheat hedged, or insured against price fluctuations, it is operating on a safe, sound business basis.

If the company purchased the wheat in September and immediately sold a like amount of wheat in the futures market for delivery at a certain specified time, a trade profit on the handling of wheat would be obtained regardless of any price fluctuations that took place in the interim between the purchase of the actual wheat and the delivery of the actual wheat. If the wheat was purchased at a profit of three cents a bushel, after deducting the freight to the terminal market this profit would not be increased by any advance in price, or decreased by any decline in price. Let us say the wheat was shipped out in October to arrive in the terminal market the next month and was sold as cash wheat, at the same time the hedge of the sale for future delivery was closed in the futures market. If the price of wheat had advanced five cents a bushel an apparent profit would be made in the sale of the cash wheat through the advance in price. But the price for the future month would also have advanced five cents and in the purchase of this hedge a loss

would be made of five cents a bushel. This would exactly offset the gain in the sale of cash wheat, or five cents a bushel. The original profit of three cents a bushel for handling would remain. If the market had declined the result would have been the same, for there would have been a profit on the hedge in the futures market which would have offset a loss of the same amount on the actual wheat.

By this system of selling for future delivery the farmers elevator company, the independent dealer, and the line elevator company can avoid speculative risks which some one must assume.

Millers find the futures market indispensable. Millers often make sales of flour for delivery many months in advance. The sales are based upon the price of wheat at the time of the sale. If the miller purchased no wheat for future delivery as a hedge against his flour sale, he would be assuming the speculative risk which the whole milling industry wishes to avoid. Like other industries, the milling industry wants to carry on business in a sound intelligent manner. If a miller were to sell flour for delivery at some future time and was not able to purchase wheat until the time arrived to fill the flour sale, and in the meantime wheat had gone skyward, he would be flirting with receivership.

Hedging adds security to the grain and milling business. It eliminates speculative profits and prevents speculative losses. Every intelligent business man prefers to weed out the speculative pitfalls and function with some degree of certainty.

LOW COST OF HEDGING

In sustaining the legitimacy of futures contracts on the Chicago Board of Trade the United States Supreme Court called hedging "a means by which growers and exporters of grain or other products, and manufacturers who make contracts in advance for the sale of their goods, secure themselves against the fluctuations of the market by counter-contracts for the purchase or sale . . . of an equal quantity of product."

Cost of the futures market with its hedging facilities is very low as compared with premiums on other forms of insurance. It has been figured that maintenance of the futures market extracts a toll of about 2/5 of a cent a bushel on the whole crop. Without this insurance the producer would receive less for his grain and the consumer would pay more. In markets having no hedging facilities the additional toll has been placed at approximately 10 cents a bushel.

Therefore, it may be readily seen why even the most aggressive critics of the grain futures exchange become alarmed over any move to interfere with the hedging market. Its economic value is recognized by all. Russia had no futures or hedging market when it was a great wheat producing country before the war, and the prices paid the farmer were relatively much lower than in the United States and Canada, or any other western European country.

TYPES OF HEDGING

Hedgers in the futures market may be divided roughly into two classes: There are those who sell futures against grain they own, and there are those who buy futures against sales of actual grain or flour.

Those selling futures in the pit as a hedge against grain they own include line elevators, which are companies having a line of elevators at country railway stations; country shippers which are called independent elevator companies and farmers elevator companies; big farmers and terminal elevator companies at the market centers.

Those who buy futures as a hedge against sales of grain and flour are millers, local elevator shippers at every market center, grain commission houses and exporters at the seaboard.

Here it should be pointed out that the daily transaction of these buyers and sellers in the hedging markets do not by any means balance. Such a condition is impossible. The balance is maintained by the speculative division of the

market. Without speculation the hedging market would be narrow, there would be crazy price gyrations and the whole purpose of the market would be defeated.

Hedging begins in June or July in the Winter wheat markets and early in August or September in the Spring wheat centers. During the next four months it is heaviest because of the movement of the wheat and oats crops. New corn crop hedging does not begin on a large scale until December.

When the crop is moving freely a line elevator company, with perhaps 50 houses in the country, may buy a thousand bushels of wheat a day at each station. It is the business of such a company to buy grain on a reasonable margin and to sell it again as quickly as possible. These companies do not care to speculate.

So as the actual wheat is accumulated by one of these companies, sales of an equal amount are made in the wheat pit as a hedge. If the company buys 50,000 bushels of wheat in one day it will sell in the wheat pit a contract to deliver 50,000 bushels of wheat during a certain future month. As the company disposes of the actual wheat, it buys back in the wheat pit the same volume which it had sold for future delivery.

Thus it is protected against price fluctuations, while holding the physical wheat. For should the price of wheat go down, an offsetting profit is made on the futures contract. Should the price go up and involve a loss on the futures contract, it is offset by the rise in the value of the actual grain. Thereby the company makes precisely what it set out to make, which is a fair merchandising profit.

Terminal elevator companies buy the day-to-day surplus at the markets and carry it until decreasing supplies late in the winter and in the spring bring forth a demand. They are located at the market centers. At most markets they buy their grain at the exchanges instead of in the country as in the case of the line elevators and farmers elevator companies.

Five million bushels of wheat carried by a terminal elevator company would be an enormous risk without the protection of hedging. So as rapidly as the wheat is accumulated the company hedges by selling an equal amount of futures in the wheat pit.

Hedging has a vitally important bearing upon the crop movement. For instance, banks loan money readily on grain in store. They loan almost up to its market value if the grain is hedged. Should elevator companies fail to hedge their grain the banks would look upon them as speculators with dangerous risks. Under present conditions terminal elevator companies, carrying millions of bushels of grain, are enormous borrowers of money. Nor do they have any difficulty in obtaining these funds when their grain holdings are insured in the hedging market.

EXPORTERS HEDGE

Exporters of grain utilize the futures market for hedging purposes to a very large extent. The exporter will contract to sell grain abroad before he has purchased the actual grain in this country. But when he enters into the foreign contract he will buy in the futures market an amount equal to his sale abroad. The price will enable him to deliver the physical grain abroad at a profit. In the meantime he need not fear a rising market, for he is safely hedged. His transaction becomes a plain business deal and not a speculation.

There can be no doubt that without the speculative market with its hedging facilities the grain business would eventually become concentrated in the hands of a small but powerful group. As it stands today the speculative market with its hedging facilities is a great benefit to the farmer as well as to the man in the street.

Hedging is now almost universal in the grain and milling business and in the cotton trade. From time to time there has been criticism by ill-advised politicians because it seems that the quantity of sales for future delivery is several times

that of cash sales. Those who point to this condition do not take into consideration the fact that the same grain may be hedged many times. Every time the ownership of the grain changes a new hedge may be put out and the previous hedge taken in. The grain may change hands several times between the producer and the consumer just as any other commodity must necessarily pass through its natural course.

In the case of grain, each owner may carry out his method of price insurance by hedging in the futures market. A farmers elevator company might first purchase the grain and hedge it in the usual way. The grain might then pass to the terminal elevator who would hedge it in the futures market, the farmers elevator company meantime buying in its hedge. The terminal elevator might sell to a miller, who in turn would hedge, while the terminal elevator bought in its hedge. Thus the process would continue, with a hedging purchase and sale for each owner of the actual grain. Often there are half a dozen such transactions. Moreover it happens that the owner of grain will transfer his hedge from one month to a more distant month, each such transaction adding to the volume of trades in the futures market. But such volume of trades need not reflect undue speculation, as has been proved time and again.

SPECULATION

In this connection authorities have pointed out that the volume of these contracts, whether speculative or not, is of no real consequence so long as the integrity of the contract remains in question.

The greater the volume the less costly is the operation of the marketing machinery.

Contrary to a former rather widespread misconception, speculation is now recognized as a part of the great system of distribution to which credit and transportation belong. In its way it performs the same general service. It facilitates the distribution of products to consumers. Henry George likened speculation to a balance wheel, by which the whole machinery of industry is regulated. Mr. Justice Hughes of the United States Supreme Court said speculation "consists in forecasting changes in value and buying and selling to take advantage of them."

In a celebrated decision in which the Supreme Court sustained grain exchange contentions, Mr. Justice Holmes pointed out that "in a modern market contracts are not confined to sales for immediate delivery."

"People will endeavor to forecast the future and make agreements according to their prophecy," he said. "Speculation of this kind by competent men is the self-adjustment of society to the probable. Its value is well known as a means of avoiding catastrophes, equalizing prices, and providing for periods of want. It is true that the success of the strong induces imitation by the weak, and that incompetent persons bring themselves to ruin by undertaking to speculate in their turn.

"But legislatures and courts generally have recognized that the natural evolutions of a complex society are to be touched only with a very cautious hand, and that such coarse attempts at a remedy for the waste incident to every social function as a simple prohibition and laws to stop its being are harmful and vain."

The speculator's service to society, then, is in avoiding or mitigating catastrophes, equalizing prices, and providing for periods of want.

Abundant proof is available that this service is actually performed by the grain futures market. It has been shown, for instance, that had speculation in grain suddenly ceased in the summer of 1920, when post-war prices began tumbling, the resultant situation might well have been termed a catastrophe. And precisely that very thing happened in wool, hides, leather, tobacco, silk and scores of other articles which are not commodities of speculation on the organized exchanges. The single purpose is price stabilization. The ruinous price swings in commodities not dealt in upon the futures exchanges are a dreaded hazard to which

the owners of the commodity must submit. It is but necessary to compare prices of such commodities over a period of years with the price of grain to understand how the futures market eliminates the risks of grain ownership.

It has been fairly asserted that the most useful portion of the speculative class are those who speculate in commodities affected by the vicissitudes of seasons.

Without wheat speculators the price variations would be much more extreme than at present. Moreover in a deficient season the needed supplies might not be forthcoming at all. Without speculation the price in a season of abundance would fall without limit or check with the danger of wasteful consumption bringing on a later famine. John Stuart Mill stresses these points clear and sharp in his Principles of Political Economy.

As stated before, some critics of the grain futures market, while defending its hedging facilities, have disapproved the vast volume of speculative transactions. It has been claimed for example, that the futures trades on the Chicago Board of Trade are several times the nation's total wheat crop.

To the layman this is an arresting thought. And many a farmer has been disturbed by the notion that his wheat was sold over and over from the time it left his wagon until it reached the ultimate consumer. The fact is that the volume of futures trading has no effect upon price other than to add stability.

In the futures market the trading is in wheat contracts. The same contract may pass through the hands of a dozen or a score of buyers and sellers, each time adding to the volume of futures transactions. Hence the large total as compared with the actual crop.

But this volume is no more striking than the enormous disproportion between the currency of the country and contracts for the payment of money. These contracts are set off in the clearing houses of the banks. No one ever dreams of attacking their integrity.

For example, at this writing the savings accounts total some twenty thousand million dollars. Yet the Treasury Department report shows that all the money circulating in the United States amounts to only four thousand seven hundred and seventy-six million dollars. Not the wide disproportion.

Five times as much money is in the banks today as there is in all the United States combined. The answer is simple. The same dollar is used over and over again, just as actual wheat is contracted for over and over again. Should all depositors of banks and trust companies ask for their money at once, it is estimated they would receive no more than 10 per cent. Yet their money is perfectly safe.

Perhaps no other institution has been more completely misunderstood than the grain exchange. Grain marketing is a highly technical subject and easily lends itself to misinterpretation when being treated by antagonistic persons with a selfish interest. In other words, since the public is not familiar with the subject, the public, including the producers, is frequently misled by a few colorful catch phrases denouncing the whole marketing system. Yet the system survives and is stronger today than at any other time in history for the sheer reason that serious minded bankers, farmers, economists, law-makers and jurists know full well that it cannot be replaced by any other system that would carry on the huge task of marketing the grain crop with such a small margin of cost between producer and consumer.

Grain exchanges will survive and will continue the evolutionary process by which they are becoming more and more efficient each year.

DURING July 376,000 bushels of wheat were cleared from the Port of Houston, Texas. Last July the clearances during that month in wheat were 1,246,000 bushels.

Leaders of American Hay Trade in Congress at St. Louis

FIFTEEN states were represented by 160 delegates who attended the thirty-fourth convention of the National Hay Association, held in St. Louis, Mo., July 25, 26 and 27, when, for the first time since 1904, St. Louis hay and grain men had an opportunity to prove their hospitality as convention hosts to this organization. Full evidence as to the value of the program provided by officers of the association, and as to the generous amount of entertainment provided by the St. Louis Merchants Exchange is to be found in the following complete record of proceedings.

A justly favorite son of the Indiana delegation, H. A. Dinius, of Roanoke, Ind., was elected president for the coming year. A Canadian, Aime Guertin, of Montreal, Que., was chosen for second vice-president, and D. B. Tilson, Kansas City, Mo., for first vice-president.

MONDAY SESSION

PRESIDENT L. A. Raney called the convention to order at 1:45, and Rev Behnke offered invocation. To lure the stragglers yet in the outer lobby into the convention hall, N. C. Niezer promoted a brief song-fest after which Charles Valier, president of the St. Louis Merchants Exchange, addressed the guests of St. Louis as follows:

It is more than 20 years since St. Louis has been privileged to entertain the members of the National Hay Association. Those years have seen vast changes in the business life of America. Socially and econom-

memories of each and every one of my confreres.

Your Board of Directors met immediately upon the conclusion of our last convention at Niagara Falls, in July, 1926, and went over carefully all the matters that came before us at that time. At this meeting the Board again displayed good judgment in the re-election of our most efficient secretary, Fred K. Sale, of Winchester, Ind., and our able traffic manager, J. C. Suttie, of Omaha, Neb. The personnel of the various committees it was my prerogative to appoint were duly designated by me as soon as possible after the adjournment of the convention, and I am happy to report that every member who accepted such duty has given me active and excellent support. The mid-winter meeting of the Board of Directors was held at Cleveland, Ohio, in January of this year, at which session all current business was carefully discussed and disposed of. Your president was also present at the meeting of the New York Hay Association held at Syracuse, and the secretary was authorized to visit Kansas City. The traffic manager, J. C. Suttie, of Omaha, and W. H. Toberman, St. Louis, and Dan Tilson, of Kansas City, of the Board of Directors, have also been very active in the interests of the National Hay Association and the results of their intelligent labors are to be seen in the decided increase of membership in the localities of their operations. The officers and respective committees have served with efficiency and responsive co-operation in endeavoring to promote the common ideals and interests of our great organization, whose motives are unselfish, as our motto declares, and whose chief purpose is to bring about better understanding between the shippers and receivers of one of our most important and universal staple commodities.

In the name of our Association, and as its president, I extend hearty thanks to all those who in their varied capacities have helped to the realization of our fine motto: "Not for self but for all."

And now, in closing, I desire to reiterate my appreciation of the honor you have conferred upon me in making me your president for the year that is drawing to its close, and I shall bear with me into retirement only pleasing memories of my personal associations with my official confreres, assuring you that in the future, as in the past, I shall still endeavor to ring true to every interest of our association and may we all "live long and prosper."

Before the report of Secretary-treasurer Fred K. Sale, H. G. Morgan, chairman of the memorial committee, offered to the convention appropriate resolutions concerning the deaths of J. W. McCord, C. A. Pease, G. B. Cavert, Edward Nelson, E. A. Dillenbeck, F. S. Smith, J. F. Umpleby, and Ralph Denio.

SECRETARY'S REPORT

TODAY marks the opening of the thirty-fourth annual convention of The National Hay Association. For the second time as your secretary-treasurer, I will give herewith a resume of the year's work of my office. Inasmuch as I have asked our other speakers for only short talks, I will briefly review some of the more important phases of our past year's work.

The last hay crop year just drawing to a close has been another of several in succession that has been unprofitable in the hay business, particularly from the shipper's standpoint. The good prospects at the beginning of the crop last year did not materialize as the statistics given out then would lead one to anticipate. Economic conditions were not reckoned with and perhaps could not have been foretold at that time. There was but a fair amount of hay carried over from the hay crop of 1925 to be added to the \$6,000,000 tons produced in 1926. Two important factors prevalent in the southland limited to a large degree the demand for hay from that locality; first, the unusually large amount of local hay produced in the Southern States last year; second, the deplorable conditions existing in the cotton and tobacco industries which commodities seemed to have practically no market value at all. Large amounts of hay consigned to southern markets, or shipped down there and rejected for one reason or another, had to be sold "on time" if to be disposed of at all.

When conditions are bad in the hay business, it makes the work of the association doubly hard. This fiscal year just closed has been an exceedingly difficult one to function properly and effectively. We are not complaining, however, for you have had your problems to confront, as we have, this past year under the prevailing conditions, but we have just dug in a little harder than perhaps ever before and have endeavored to serve you faithfully and to the best of our ability during the past 12 months. Had we received a little more individual co-operation and assistance from each of you members present today along during the year, the results for the year might have been more satisfactory and our burdens lightened. I am sure many of you will agree with me and rejoice in the fact that the year has now gone by and will look with anticipation and hope for a better and

more profitable year in handling the new hay crop, now being put up under most favorable conditions.

Activities

The work of the secretary's office for the year has been more or less of the routine order. We have tried to handle the many matters called to our attention promptly and efficiently.

Following the convention at Niagara Falls, President Raney and I had a conference to plan the year's work. By direction of the president, I attended the Michigan Hay and Grain Association annual meeting at Lansing, Mich., August 18 and 19. By the same authority, I attended the Grain Dealers National Convention at Buffalo, N. Y., October 18 to 20. December 20, attended an organization meeting of the Northeastern Indiana Hay Dealers Association at Decatur, Ind. This little association territory consisting of perhaps five or six counties located in the northeastern part of Indiana has grown steadily and is accomplishing much in overcoming many obstacles which had been prevalent prior to the time of its organization. These local and state hay shippers' associations are of great benefit and there should be more of such organizations in other states.

The mid-winter meeting of the Board of Directors was held January 10, at the Statler Hotel in Cleveland, Ohio, this being the most central and easily reached city for the members of the Board who could attend. Six of the 10 directors, in addition to President Raney, were in attendance and an all-day session lasting until midnight was held and many matters of important business were transacted. It was decided that the thirty-fourth annual convention be held in St. Louis, Mo., July 25, 26 and 27. I went to St. Louis on March 20, where I spent two days to select a convention headquarters hotel and to make many other preparations for the annual meeting.



RETIRING PRESIDENT L. A. RANEY

ically the fabric of life has been rewoven and the problems which face us today are much more complex than those which faced you then. What with increasing regulations of every kind and the evergrowing question of governmental aid to certain fields of endeavor, the matters which this meeting will decide must be weighed carefully and acted upon only after mature deliberation, lest we succeed, not in simplifying but in complicating the situation which confronts us.

Saint Louis welcomes the opportunity of being host to this convention; the Merchants' Exchange will watch with great interest the business of this assembly; and we feel confident that the progress made in other years will be surpassed so that succeeding meetings of this nature will look to the work done here as a beacon of constructive guidance and singular achievement.

To these remarks, Mr. Niezer responded for the association, giving the floor in turn to President Raney.

PRESIDENT'S ADDRESS

IN SUBMITTING this, my report as your president for the year of my administration 1926-27, to the thirty-fourth annual convention of the National Hay Association, together with that of the Board of Directors, I shall not dwell on the business conditions that have prevailed during the year, which are sufficiently known to each and every member of this association, for I am one who believes in that trite old adage: "Look not back mournfully on the past but hopefully to the future," and therefore, I am going to confine myself as briefly as possible to my year's administration as your president in which I have experienced cordial loyalty from our entire "official family" and cheerful co-operation in every department, for which I am inexpressibly grateful, and shall carry with me into retirement only pleasant



PRESIDENT-ELECT H. A. DINIUS

It seemed an opportune time to extend my trip just a little in an effort to seek some new members in parts of the states of Kansas and Nebraska. With the consent of President Raney and in company with Walter H. Toberman of St. Louis and Traffic Manager Suttie of Omaha, we spent a day in the Kansas City market. We called on many of our members in Kansas City and inspected the hay "plug" tracks. From Kansas City I went into the southern part of Kansas, then up into the state of Nebraska, and in company with Traffic Manager Suttie and Harry Beatty of Overton, Neb., we made a trip out through western Nebraska calling on some of our members and particularly endeavoring to secure new members. This membership trip, I consider very successful for the reason that we secured eight new members while on the trip. As a direct result of this trip five more applications were sent in later from this territory, making at least 13 new members up to this time.

Membership

The results obtained this fiscal year, with respect to the number of new members received, might have been better if greater efforts had been put forth by our members this year, so the total secured is not quite as large this year as last. Since the last convention we have received 73 new members, while this time a year ago we had 87 to report. The list of members whose names appear on the Honor Roll is not quite as large as last; 26 members of this Association have obtained one or more new members this fiscal year while last year we had a representation of 33 names on the Honor Roll.

You know the conditions that have existed in the hay business this year as well as I do and those of you who have really put forth an earnest endeavor to secure new members this year, know just how hard it was under the conditions existing to get a prospect

to sign on the dotted line. As your secretary, I want to extend my sincere thanks to each and every member of this Association who has really put forth an effort in this membership campaign, whether you were successful or not in securing one or more new members. This part of our work is one of the most important confronting us at this time. Many firms are dropping out of the association because of their discontinuance of the hay business, resigning, failures, or going out of business entirely, and in addition to these, many that we have dropped because of non-payment of dues last year. I appeal to you all, individually, for your whole-hearted and earnest endeavor to secure at least one new member during the coming year. There isn't a member but who can secure at least one application if the proper effort is put forth. We have some guests with us today who by their attendance indicate they are interested in the work of this association, so you have material right here at hand to work on at once.

Arbitration

During the course of the year we have had but three arbitration cases to be handled by the committees. Two of these cases were reviewed and awards rendered by Arbitration Committee No. 2, and the other case was handled by Arbitration Committee, No. 1.

A great many controversies have come to the secretary's office this year and a great deal of work and time has been spent in trying to accomplish satisfactory settlements and in the collection of claims between members. Results have been very satisfactory



SECRETARY FRED K. SALE

and in most cases both parties involved have shown a commendable spirit in trying to get together in settlement of these controversies, even though it be on a compromise basis. The recapitulation of the arbitration cases and adjustment of claims brought to the secretary's attention might be summarized as follows:

Cases decided by Arbitration Committee.....	3
Cases withdrawn	1
Cases under preparation.....	1
Cases—defendants suspended, refusing to arbitrate	5
Claims of minor importance handled or settled by Secretary	42
Claims in process of handling.....	38
Total	90

The National Hay Press

The National Hay Press, the official magazine of this Association, continues to be self-supporting. With the limited amount of money at our command to publish this little magazine, we have endeavored to do the best we could to make its columns of interest to our members. May we ask your continued support and assistance of giving us advertising space in this publication the coming year? To those who are not now carrying some space, we earnestly solicit your business. Advertising in *The National Hay Press* is the cheapest and best advertising that you can secure for your firm anywhere. This magazine goes directly and exclusively to the hay trade throughout the entire country and the eastern half of Canada and it reaches those that you desire to get in touch with. Won't you write us and allow us to quote you our very low rates for advertising?

Transportation

The work of the Transportation Committee, and particularly the personal efforts put forth and accomplishments obtained by our very efficient traffic manager, J. C. Suttie, has been as important as any of the work of our association this year. I will not

go into details as Mr. Suttie will cover this work fully in his report later. None of our members perhaps know better than your president and secretary the time, expense and sacrifice from his own business, that Mr. Suttie has given to the work of this Association the past year. Do not fail to hear his report at the session tomorrow morning.

Grades and Inspection

During the past year there have been some important changes in some of the terminal markets with respect to the hay grades officially recognized by them. Last fall the grain exchange of Birmingham, Ala., discontinued the use of Federal hay grades after trying them out for about two years. They made application to this Association for the restoration of The National Hay Association Grades on Hay and Straw and to consider them as "official" in their market. By authority of the Board of Directors, their request was granted and our former Approved N. H. A. Inspector, M. J. Kendrick, was again granted the privileges of an approved inspector. This approval was made August 6, 1926.

On September 1, J. K. Williams, approved inspector in the Jacksonville, Fla., market, resigned and W. H. Binkley was selected to fill the vacancy. Request was made of this Association for the examination of Mr. Binkley with the idea of making him an approved inspector. Before this action was taken, however, Mr. Binkley resigned to go into the employment of the Federal Government at Kansas City. Only recently L. P. Legett has been selected to act as hay inspector and also grain inspector in the Jacksonville market. This market continues to use National Hay Association grades.

On January 1, 1927, the Merchants Exchange of St. Louis, Mo., advised us that they had decided to recognize as "official" in that market, the Grades of The National Hay Association in their entirety. Request was made of this association to examine with the idea of becoming approved inspector, their three inspectors, Messrs. DeArmond, Cleaver and Rogan. These men were approved by the Board of Directors later.

Concluding Remarks

As I have studied some of the many really serious problems of the hay trade in general, and of The National Hay Association in particular, it seems that the time is at hand when we must get right down to business and talk over more seriously the problems confronting us today and to try to work out relief measures.

Why the hay business seemingly should be carried



ST. LOUIS MERCHANTS EXCHANGE HOSTS
S. P. Steed, A. H. Beardsley, Walter H. Toberman

on in such a haphazard and loose way as it is today is more than I have been able to understand. Why should it not be conducted along more ethical lines of business than it is now operated under? When we begin to apply real business methods in our purchases or sales of hay, then we will begin to get more satisfaction in this particular line of business. The promotion of good-fellowship, fair play, honest dealings and the purchase of hay on grade from the farmer; also to load your cars uniformly and to ship the grade of hay you sell, and further to gain the confidence of your customers, seem the paramount issues for our consideration at this time. The hay business is undergoing a change as we will all admit, but in my opinion the hay business is not a thing of the past and the most reliable and progressive firms will continue in the hay business indefinitely. This particular business is going through a transitional period the outcome of which none of us can now predict successfully. The motor interests spending hundreds of thousands of dollars in their propaganda work have made great inroads and hurt our business materially. More large business firms, however, today are beginning to keep actual records of the cost of operation of their trucks as against the use of horses and many find the motorized system of delivery too high to continue the operation longer than their present equipment, and intend to replace their trucks with horses.

One of the real needs of this association is for

a better understanding among its members, to know your customers and to know the requirements of that particular territory you may ship to, together with the knowledge of their trading and inspection rules. Having all the terms of your sale or purchase clearly defined in your confirmations will bring about a solution of a great many of the troubles and misunderstandings existing in the trade today. One of the main ideas of holding meetings of this kind is to get acquainted with your customers, make new friends, to get a better understanding of conditions existing in various parts of the country and particularly establish faith and confidence among our members wherever they may reside, and which can perhaps best be accomplished by personal contact in social and business meetings such as our annual conventions.

In closing, I want to herewith publicly express my appreciation to the various officers of the association who have served so diligently and earnestly this past year. I cannot name individuals without doing so collectively, but without your splendid assistance we could not have "carried on" as well as we have this year. To my office force who have stood by me so faithfully, I want to extend my heartfelt appreciation for their loyalty and service. To the various trade papers; we have endeavored to work harmoniously with them this year and have exchanged many favors throughout the year. The St. Louis Convention and Publicity Bureau receives my heartiest commendation and thanks for their splendid assistance in the preparation of the many details connected with this meeting and the unusual publicity campaign of advertising this meeting, which I consider the best organized and most efficient advertising service we have ever had in the past. To the Merchants Exchange of



F. H. UDELL AND SON, "BILL," KANSAS CITY, MO.

St. Louis, together with the many hay and feed firms of this city, I wish to acknowledge my indebtedness to them, collectively and individually, in the big part that they have to play in providing and arranging the many forms of entertainment which will be your pleasure to enjoy during this meeting. Finally, let us work closer this year than ever before. We can't very well force our services on you if you do not give us the opportunity to serve you. May you put something into the Association work this year and in so doing you will better appreciate the value of your membership in The National Hay Association.

I thank you.

Of interest to the practical hay man, was the address by F. H. Udell, on Alfalfa, which followed Mr. Sale's remarks.

THE IMPORTANCE OF ALFALFA HAY AND MEAL

I FEEL quite honored to have a place on your program, as I have a very active interest in the hay market at Kansas City, and the Purina Mills are, I believe, the largest individual buyers of baled Alfalfa hay, and the largest users of Alfalfa meal in the country. My talk was to be on "The Importance of Alfalfa Hay, and Alfalfa Meal in the Feeding Industry," but I feel that all of you realize that Alfalfa might be termed the "backbone" of the feeding industry. It would be presumption on my part to attempt to tell you the value of Alfalfa from a merchandising standpoint.

As to the importance of Alfalfa hay to the producers, let me quote from the following authorities:

L. E. Willoughby, Kansas State Agricultural College, says: "Alfalfa is the most profitable general field crop that Kansas farmers can raise. For the 10 years (1915-24) the average crop value of Alfalfa was more than double the average acre value of grains, sorghums, wheat, corn or oats. Due to the high mineral and vitamin content of Alfalfa its feeding value is greater than is shown by chemical analy-

sis. Alfalfa and silage, or Alfalfa and other good carbohydrate roughage, is the basis of the cheapest and best dairy ration."

J. C. Mohler, secretary, Kansas State Board of Agriculture, states: "Alfalfa is the most valuable crop that can be grown in Kansas. That is an established fact. Our concern is to restore Alfalfa to its rightful place in Kansas, which would mean, virtually, the doubling of our present acreage. Nothing better could happen in Kansas agriculture than to do that. With proper care and painstaking, however, permanent stands may be readily secured, and a permanent stand of Alfalfa is worth all it costs."

Jewell Mayes, secretary, Missouri State Board of Agriculture, says: "There should be at least a patch of Alfalfa on each and every corn belt farm—in fact, there is hardly a township in the United States but what needs more Alfalfa."

W. C. Etheridge, Missouri College of Agriculture, says: "Alfalfa properly sown on suitable soil correctly prepared, will grow like a weed and give into the grower an abundance that will gladden his heart and fatten his pocketbook. The farmer who can visualize excellent returns from a forage crop in the form of horsepower, meat, milk, and eventually money, and who plans to paint the beginning of his mental picture in the living green of a successful crop, will make Alfalfa his first choice."

For a while the feeding world paid all homage to protein. Then scientists discovered that other properties of food should be given equal consideration with that of protein content. Now, in considering the feeding value of Alfalfa, the vitamin content probably stands out in equal importance to that of digestible protein. The leaves of Alfalfa are also especially rich in sodium, calcium, phosphorus, chlorin and iron, as well as the highly important dietary factor fat soluble "A". The plants leaves, on a dry basis, have about the same content of vitamin "A" as is contained in butter—and butter is highest in this factor than any of man's natural foods. Thin leaves, as lettuce or Alfalfa, contain inorganic salts, such as calcium, iron and other elements that are almost wholly lacking in wheat, corn, oats, or other grains, balancing and supplanting such grains as an ideal feeding combination. In addition to the foregoing, there is the mysterious principle in Alfalfa leaves which has a direct bearing on fertility, proving that Alfalfa in the diet of all stock furnishes valuable nutritive factors which cannot be supplied in any other way. This factor is known as vitamin "E."

Feeders have found that a big loss in feeding loose hay is the shattering of these leaves, and where Alfalfa meal is available, the larger sheep feeders in the West find that Alfalfa meal is worth at least 38 per cent more to them for lamb feeding than feeding straight field run Alfalfa hay. For years, western sheep feeders have known that their lamb crop ewes fed on Alfalfa is 20 per cent to 25 per cent higher than when fed on range grasses and grains. Oftentimes the lamb crop being 125 per cent the higher percentage of twins reflecting very clearly the reproductive properties which are so pronounced in Alfalfa, and we think more so in the form of meal, by reason of increased digestibility. This proves conclusively that Alfalfa is



FRONT ROW: WM. MUSTERMAN, C. F. ARNOLD, T. ENNIS, KANSAS CITY; SECOND ROW: E. A. OLSON, MINNEAPOLIS; J. D. KEOUGH, ST. PAUL; J. C. SUTTIE, OMAHA

rich in vitamin "E." I have recommended that our people prepare a twin brand breakfast food of Alfalfa to put on the market—twins guaranteed with every package. Furthermore, the meal admits of ready mixing, while the hay does not. Alfalfa meal as a base for mixed foods cannot, therefore, be considered as merely a base for grain and molasses mixtures, but a strictly necessary supplement to properly balance the ration.

Ross N. Sherwood, director Poultry Department Texas A. & M. College says: "In Experiment 5 lasting eight months, the pen receiving Alfalfa meal in the mash laid well with practically no mortality. In pens not receiving Alfalfa meal in the mash, low egg product and high mortality resulted."

R. Adam Dutcher, head of the Department of Agriculture and Biological Chemistry of the Pennsylvania State College, says: "Alfalfa happens to be one of the best foods that can be found to supplement ordinary livestock and poultry rations. It not only contains the best valuable vitamins, but it also furnishes an excellent quality of protein and helps to furnish some of the necessary mineral salts."

We have flocks of breeding hens that have not had any green feed, other than Alfalfa meal, since they were on the chicken range and have been shut in the

laying houses continuously for more than a year. These hens gave us 96-98 fertility all last year, and have not only laid well, but came through the molt in splendid condition."

The Ohio State Poultry Experiment Station brings out in Bulletin 5, August, 1926, "In various feeding trials at this station during the last three years, Alfalfa gave uniformly good results, needless to say, it is easier to provide than succulent green feed."

Out in Kansas City our company operates the largest grinding plant in the country, and we also have grinding plants in E. St. Louis and Ft. Worth; but our requirements have made it necessary to just recently purchase another grinding plant in Kansas City. This meal is never sold commercially, but is used in our own products—Purina Chows.

We are members of the National Hay Dealers Association, the Kansas City Hay Dealers Association, and the leading grain exchanges of the country. I mention this to show our spirit of co-operation with the hay and grain dealers. However, with our requirements so large, it is absolutely necessary that we have inspectors and buyers in the producing territory, constantly reporting conditions as they find them and keeping a constant stream of shipments moving to our mills. There are a number of companies producing Alfalfa meal. Some for their own use, and some for resale.

The history of the meal industry only reaches back over the short span of 20 years. Prior to that time



AVON BURT, DECATUR; C. G. EGLY, FORT WAYNE, IND.

some Alfalfa meal had been used, but not commercially to any extent, and the industry itself first saw light in the year 1907. Therefore, it can readily be seen that Alfalfa meal is now an important factor in the feeding industry.

At the close of this first session, nominations were received, the final results of which were announced on Tuesday, and were as follows: New directors: A. B. Caple, Toledo, Ohio; H. A. Post, New York, N. Y.; Henry Fruechtenicht, Louisville, Ky.; E. A. Olson, Minneapolis, Minn.; L. A. Raney, Goldsboro, N. C. Directors holding over are: Walter H. Toberman, St. Louis, Mo.; H. A. Bascom, Boston, Mass.; J. C. Suttie, Omaha, Neb.; J. V. Craig, Washington, D. C.; S. O. Downer, Saginaw, Mich. Indiana, Missouri, and Quebec, Canada, are represented by the president, first vice-president, and second vice-president, respectively, H. A. Dinius, D. B. Tilson, and Aime Guertin, being the trio elected.

While the foregoing business progressed, the ladies who were guests of the convention assembled for bridge 17 stories above the convention hall on the Statler roof garden. They also participated in the Mississippi excursion aboard the J. S. Monday evening, which was enjoyed by a large number of the delegates, about 60 registrants being among the 1,400 passengers carried on the four decks of the famous river liner.

TUESDAY SESSION

THE gavel sounded at 9:45 the morning of the second day, and D. B. Tilson was introduced. He discussed in a fair manner the market for hay, calling attention to the fact that the markets and demand for hay are from radically different sources today than 20 or even five years ago. He suggested that instead of being disgruntled over the lack of a demand from the former large city teaming trade, hay dealers should keep abreast of the times and study the new outlets, such as the hay and ground meal requirements for live stock, hogs, etc. The tractor, he believed, served some of the larger farmers in a very efficient manner, and although the tractor and the auto truck were not consumers of hay, little benefit could be derived from waging war against them.

G. S. Bridge of Chicago stated that in many communities the horse was coming back into his own, and that in some other localities this was being done at the expense of the tractor and truck. He added that in Illinois it had been found too expensive to use a tractor on farms smaller than 240 acres.

After this discussion, J. C. Suttie presented the following material.

REPORT OF TRAFFIC MANAGER

THE Traffic Department has spent a busy year on transportation matters connected with the association, and while some sections of the country appear to be working along satisfactorily under present rates and rules, yet there are a great many discrepancies to be ironed out in other sections.

Possibly the most important subject considered, and which is not yet finally settled, is the question of weights on hay, C. F. A. and S. F. A. territories. We have been working on this for some two years, and last October had a meeting with the sub-committee appointed by Chairman Morris of the C. F. A., at Cincinnati, where the question was gone into from all angles. We explained the utter impossibility to operate under present rules, notwithstanding they had been in effect some 12 years, and both carriers and shippers were anxious for some really workable rules which would be fair to both sides. The southern carriers, who terminate most of the hay involved, were strongly against any change which would consider the question of unloading weights, and to back up their position, told of any number of cases where false weights and affidavits were used to support claims. We succeeded in convincing them we did not countenance such methods, but what we did want was something where an honest shipper could have certain protection. The committee finally told us they would draft some rules and submit them to us for our consideration. This was done, and circular sent to all of you in that territory, together with our suggestions as to certain changes. July 10 we received amended rules back from Chairman Morris, stating reasons why carriers could not adopt our suggestions in full, but really making no radical changes in the rules. The rules now will go on public docket before the C. F. A., and if no objection, we understand will be published in supplement as quickly as possible. We agreed to a thorough trial of these rules for one season's business, as it was the desire of the carriers to try to get something satisfactory to us both. You will be informed by circular letter just as soon as the rules will be published. It is my opinion if both shippers and carriers try to live up to the new rules, the greater part of the trouble of the past will be eliminated.

The Hoch Smith Resolution also is an important case under way at the present time as regards hay rates. We attended hearings at both Chicago and Kansas City. June 29 the I. C. C. advised us that they had created a heading to be known as "Part 10—Hay," under docket 17,000, and would consider all testimony on hay rates as assigned for hearing under that part of the docket, also that they would incorporate under that heading the South Dakota Hay case,



A. B. CAPLE, J. A. CAPLE, AND L. A. LUSHER, TOLEDO, OHIO

Docket 16,502: Fourth Section Application 13,040, hay from South Dakota; and Dockets 19,222 and 19,623, Kansas cases. The bulk of the hay in the territory from Chicago to Pacific Coast is moved under commodity rates and in the original decision of the I. C. C. in Docket 16,502, a mileage scale of rates was prescribed, which, had same gone into effect, would have affected seriously every hay rate from Canada to the Gulf and Chicago west. After a great deal of pressure was brought to bear on various sources, the effective date of this order was postponed and case reopened under Docket 17,000, date of hearing to be announced later. We took a decided stand on this South Dakota case and the order issued under the same, on account of the strong advance it made in practically all hay rates, and the mileage scale prescribed would have meant higher rates in many sections of the country outside specific territory named.

Reconsignment

An effort was made by carriers, starting with Texas lines, last July through docket issued by the Texas-Louisiana Tariff Bureau, followed by similar effort by the National Diversion and Reconsignment Commit-

tee in November, to propose some radical changes in present reconsignment rules and charges. One change in particular which would affect the hay traffic would be the restriction proposed as to number of times a car could be reconsigned, etc. We entered our protest along with many others, and were advised November 30 of the indefinite postponement of subject.

Colorado to Mississippi Valley

Joined with Kansas City and St. Joseph in protesting increases in three different tariffs, finally receiving word the advances were cancelled, after we had obtained suspension of the supplements from the I. C. C.

Western District Employees Increases

Joined with a great many other industrial and traffic organizations in protesting wage increases to certain trainmen, stating while we had no objection to their obtaining increase, if it was to come out of railroad earnings and we would be faced with higher rates to pay it, we did not feel the hay traffic could afford higher rates. Only small part of increase granted.

Prepayment of Freight

This spring, Southwestern Freight Bureau Docket 11,576 proposed a requirement that all freight charges on carload shipments of hay must be either prepaid or guaranteed. Naturally if this rule was made effective in that territory it would be immediately followed by similar rules all over the country. We did not enter protest, feeling that the proposed rule was really protection to the legitimate dealer in that it would stop a malicious practice that prevails every now and then in some parts of the country by unscrupulous shippers.

Quarantines

Made considerable investigation into necessity for continuing present quarantines or embargoes from Western States such as Utah, Nevada, Idaho, etc., to Central and Eastern States, also Mississippi Valley, taking the subject up with state and railroad authorities. Investigation developed inability to change present situation and we were unable to secure any relief for our far western friends. Had we been able to do anything on this, it would undoubtedly have resulted in many new members for the Association. As the matter stands, some places in these states have three years' cuttings of Alfalfa on hand.

Claims

Have handled a large number of claims of every description, and in most of the cases were able to help our members get relief they desired. Some claims we were unable to get anywhere with, being old "sores" that had been the rounds everywhere else, but the bulk of the claims were such that we feel we were of considerable assistance in getting settled.

Recommendations

1. When the new weights rules are published in C. E. A. territory, C. E. A. members study them closely and particularly this weight agreement feature. Personally I have seen this weight agreement in operation in the West and have yet to learn of a case where the ultimate results were unsatisfactory. It may seem like a lot of work and accounting to keep the records specified, but really it is very simple and will afford you the best of protection.

2. A good many claims I have handled indicate that members are not familiar with bill of lading requirements. Read over the printed matter on bill of lading—it will be well worth your while.

3. No transportation matter is as important as Reconsignment. Study these rules. I have handled a large number of claims for overcharges on reconsignment and it leads me to believe our members do not fully understand same. Where records were per-

(b) However, should such car be billed allow inspection and seals broken, inspection made (tariff reads such inspection as may be necessary or desired), charge would be \$2.25 or \$2.70, according to territory.

(c) Car sent to private industry or spur and rejected, would have to be billed out on new B/L, but no R/C charge made.

(d) Car billed to terminal market, for instance, delivery taken, charges paid. Rebilled out over same road on new B/L as entire new shipment, no R/C.

(e) There is considerable difference of opinion as to number of times a car can be reconsigned, but in my opinion, where the through movement over direct line is not broken, a car can go on to several destinations and handled on through rate plus \$2.25 or \$2.70 R/C at each stopping point, if car is given regular inspection at such stopping points. As an example of what I mean, a car originating North Platte, Neb., billed Omaha, is inspected Omaha and R/C to Sioux City, inspected and reconsigned to Minneapolis, inspected and reconsigned to Duluth, inspected there and switched. Through rate North Platte to Duluth protected. Some carriers do not look at the rules in this light, but have had no great trouble in getting claims through after some correspondence. If members will bear this in mind, they will save themselves some trouble and money: "Car billed allow inspection and so inspected, comes under the special rules governing hay and not the general reconsignment rules."

General

Traveling—have made only such trips as were absolutely necessary the past year, and in fact have been close to the danger line in being too economical. Have spent some time and effort in getting new members, with fair success. We think we will get what



I. L. SUTHERLAND, JR., RICHMOND, VA.

we want in the new weighing rules, yet the only expense to the Association has been trip to Cincinnati: a formal complaint would have cost many, many times what little expense we have had with the case.

Personally I am indebted greatly to President Raney and Secretary Sale for their many favors and help to me. I have worked closely with Director of Transportation Sandberg of the American Farm Bureau Federation and have found him always taking a vital interest in Association affairs. Superintendent

surance that I will do everything I can for any member at any time when called upon.

John S. Leahy, St. Louis, followed Mr. Suttie on the program, giving a brief talk on hay and hay makers, after which the report of Vice-president J. B. Kittrell, Greenville, N. C., was read by Mr. Niezer. This was devoted largely to reports of conditions in various parts of the country. There were 30 of these reports, covering the principal hay-growing states and Canada, and they pictured to the members hay conditions in a thoroughly representative way. His report, as read, closed with an appeal to the members for more active work in securing membership applications.

Victor J. Miller, mayor of St. Louis, who was unable to attend the opening session of the convention, addressed the meeting as the first speaker



L. A. RANEY, GOLDSBORO, N. C., AND M. C. NIEZER, FORT WAYNE, IND.

of the Tuesday afternoon session, after which the meeting was open for discussion. One of the subjects covered in this discussion was the state ruling which again permits horse racing in Missouri. The hay dealers of the state regarded this as a further aid to their business through encouraging an increase in horse breeding. Wm. E. Murphy, Philadelphia, Pa., representing the Horse Association of America, made a very timely talk on the increased use of horses throughout the country. Election of officers, which has been reported in the foregoing columns, ended the business for the day.

The St. Louis Zoo, with the cageless bear pits, Shaw's Botanical Gardens in Tower Grove Park, and Forest Park were among the objectives of the convention's feminine contingent Tuesday morning, when the ladies were guests of the St. Louis Merchants Exchange on an extended sight-seeing tour.

Downtown theatres were attended in the afternoon by the 20 or 30 wives and daughters present, and in the evening two double-decked bus specials had to be chartered to carry the visitors to the open-air Municipal Opera in Forest Park. Men and women alike seemed to enjoy "The Dollar Princess." Two center sections had been reserved by the St. Louis hosts for the evening. The entertainment climax was reached when the guests were brought back to the Statler. The entire north wing of the roof was reserved for the convention, and a midnight supper was served, with dancing and special entertainment features offered between and after the courses.

To W. H. Toberman, A. H. Beardsley, D. S. Mullally, S. P. Steed, and the many other members of the St. Louis exchange who co-operated in providing this exceptional entertainment, a vote of appreciation was given.

A special dinner for the past presidents of the association was given Monday evening.

WEDNESDAY SESSION

L. W. BALDWIN, scheduled to speak on grain transportation at the final meeting, was not able to appear and the only address of the morning was given by E. A. Olson, of Minneapolis, who outlined the Minnesota State system of hay weighing and inspection. There was but little discussion following this address, and the main order of business, the installation of new officers and directors, proceeded. At the conclusion of this formality, a vote of thanks was given officially to the St. Louis Merchants Exchange, and the thirty-fourth annual convention adjourned.



GUESTS OF THE NATIONAL HAY ASSOCIATION 1927 CONVENTION, ST. LOUIS ABOUT TO EMBARK IN BOULEVARD LINER CHARTERED BY ST. LOUIS EXCHANGE

fectly clear have had no trouble in securing refund of overcharge for a good many who sent their claims in, even though they had been refused by carriers. A brief synopsis of R/C rules may help you:

(a) A car not billed allow inspection and hold in terminal yard for disposition orders, such orders being received after 24 hours after arrival, \$6.30 is correct.

Frank Baldy of the Pittsburgh Grain & Hay Exchange has been a wonderful friend in this Weights on Hay case and the Association is indebted to him for his counsel and help. In fact, I have yet to find a man that when called upon for help, failed to go the limit in any way he could. The membership of this Association have been very courteous and friendly and to them all I extend my hearty thanks, with as-

HAY, STRAW AND FEED

SPOKES in the feed distribution wheel, of which the Illinois Feed & Elevator Company, Bloomington, Ill., is the hub, have been lengthening. They extend at present into 10 states which include Michigan, Indiana, Kentucky, West Virginia, Ohio, Pennsylvania, and Illinois. Some business also is done in New York and Virginia, as well as in other states from time to time. Both the production and the merchandising of this concern's branded feeds are in expert hands, and in the wide area over which business has been sought, "Illinois," "Homestead," and "Daily Need" poultry and stock feeds are well entrenched.

Bloomington, a city of about 30,000 population, has several mill and elevator companies, but the 100,000-bushel capacity of the Illinois Feed & Elevator Company is by far the largest in this district. Steel and concrete storage for 20 cars of molasses also is provided, as well as a 30-car

Illinois Feed For Ten States

ing in capacity from 10 pounds to 10 bushels, allowing for accurate weighing in minimum time.

Ingredients used in the "Illinois" Laying Mash, a leader in the line, include: Pure dried buttermilk, cod liver oil, soy bean meal, meat and bone meal, Alfalfa flour, oat flour, oat midds, wheat bran, wheat midds, corn feed meal, ground oats, 1 per cent calcium carbonate, and 1 per cent salt. The final analysis of this feed gives sure evidence of its quality. Twenty per cent protein is shown; 5 per cent fat; 7½ per cent fiber; 50 per cent carbohydrates. A 17 per cent protein starting and growing mash, with buttermilk and cod liver oil, also is offered.

The all-mash ration method of feeding chicks and growing pullets has passed beyond the experimental stage and is now accepted by poultry raisers as a dependable practice that simplifies feeding and improves results. Six years ago the Illinois Feed & Elevator Company put on the market

Feed, a 32 per cent protein ration, formulated to be mixed for the best feeding advantage with home grown grain, McClean County Pig and Shout Meal (to replace tankage), "Homestead" Hog Feed, and "Daily Need" Stock Feed, an all-grain, maintenance feed for all kinds of livestock.

The Illinois Feed & Elevator Company's plant is located on the main line of the Chicago & Alton Railroad, and quick dispatch of orders is always possible.

HORSES IMPORTED INTO WISCONSIN

Horses valued at upwards of \$2,000,000 will be imported by Wisconsin this year. An official of the Wisconsin Manufacturers Association says, "We have been getting a lot of horses from Illinois and Iowa. Buyers maintain that there are no more to be had in Illinois and Iowa and have been buying now from Minnesota. It is now pretty well picked over. We have gotten in a few from the Dakotas and apparently they have no surplus. They are drifting now into Montana and probably by next year will be as far as Wyoming."

HISTORY OF TIMOTHY

In a new bulletin issued by the United States Department of Agriculture, under the designation Bulletin No. 1450D, the various functions of the dif-



D. SENSENBAUGH

frame and brick warehouse to accommodate the feeds pending shipment. The 350-ton daily capacity of the plant is kept sold well in advance by a good sized sales force under the immediate supervision of G. P. Stautz, secretary-treasurer of the company, who also acts in the capacity of sales manager. Direct mail advertising work is carried on to support the salesmen and the elevator companies or other dealers handling the Illinois line of feeds.

The general popularity of the whole line rests, of course, on its efficient production in the mill. Vice-president Sensenbaugh is in direct charge of feed manufacture, and has achieved not only good feeds, but a system which insures uniformity year in and year out. Some of the machinery in use is of his own design and patents now are being sought for those devices which have proved of unusual value. A cod liver oil spraying machine, special type feeders, and corn cutter improvements are among the inventions developed especially for the feeds of this company.

The original elevator and mill on this firm's location was built about 50 years ago. Some of the old structures remain, and are in good condition for they were well built. In 1920, however, the whole plant was thoroughly overhauled. Concrete storage replaced wood, and throughout the five-story mill, strictly modern equipment was placed. Eighteen electric motors, nearly all direct-connected, furnish the power to the Gruendler Hammer Mill, the two attrition mills (Unique and Monarch), corn cutters, etc. Seven automatic scales, rang-



PLANT OF ILLINOIS FEED & ELEVATOR COMPANY, BLOOMINGTON, ILL.

Illinois Starting and Growing Mash, recommending it as the only mash feed from time of hatching until pullets were ready to lay. That the experiment stations and practical poultrymen are now recommending the same procedure is vindication of the method.

The quality of these poultry and stock feeds, the makers believe, are a match for any on the market, and the prices are more than a match in many cases.

The officers of the company report that business at present is good, and various indications, in their opinion, give promise of another good two years for feed dealers handling balanced rations of result-producing qualities.

Among the feeds not already mentioned, produced by the Illinois Feed & Elevator Company, are "Homestead" Laying Mash, with dried buttermilk, "Weighmor" Poultry Fattener, "Illinois" Dairy Feed (24 per cent protein), "Homestead" Dairy Feed, "Homestead 32" Farm Mix Dairy

ferent parts of the Timothy plant are described. The bulletin is entitled "The Life History of Timothy" and is based on the life history study of Timothy conducted over a period of 12 years at the Timothy breeding stations, New London and North Ridgeville, Ohio, in co-operation with the Ohio Agricultural Experiment Station.

PENNSYLVANIA STOPS "BLANKET" REGISTRATION

Certain firms in Pennsylvania were recently found guilty of avoiding the registration of feeding-stuffs by operating under the so-called "blanket" registration, and this discovery led to the attorney general of that state ruling that this method of operation is unlawful and that every person mixing even a part of a feed is required to register it.

Under the "blanket" registration procedure, the original manufacturer possessing copyrighted brands would register feeds under these brands, giving the usual complete information. Contracts

were made then by a number of small Pennsylvania manufacturers to put out feeds under the same brands without doing the complete mixing themselves. Part of the ingredients were shipped by the original firm with a supply of tags to Pennsylvania mixers, who in turn added additional ingredients and completed the mixtures and then placed them on the market with the tags supplied.

HAY: 101,000,000 TONS

The shortest corn crop in 26 years, as indicated by the United States Department of Agriculture Report released recently, was in a measure offset by the estimate of a record hay production. Government figures indicate a total tame hay harvest of 101,000,000 tons. This volume is in line with the estimates of several independent forecasters who have emphasized that this year's hay acreage, 60,262,000, is nearly 2,000,000 acres greater than that devoted to all wheat.

The 1927 acreage is 2.7 per cent greater than last year, and the indication of condition for a good harvest is this year much nearer to the five-year average of 90.9 than in 1926 when it was 86.4.

HAY CURED IN LIGHT IN TURN CURES RATS

That Alfalfa hay cured under certain conditions could maintain a positive lime balance in milking cows was shown by experimental work several years ago. It was emphasized at that time that this hay was cured "under caps" the idea being that the partial protection provided by the caps prevented the destruction of the anti-rachitic vitamin in the hay. Hay cured in other ways was found not to have the same properties as that cured under caps.

Further studies now have been made with hay cured under various conditions, some of it being exposed to light and weather, some exposed to light but kept dry, and some dried in a dark attic. With the advent of the idea developed by Professor Steenbock of Madison, Wis., that light is the only source of the anti-rachitic vitamin, it became evident that the anti-rachitic properties of hays might be influenced by their degree of exposure to sunshine as well as to exposure to certain destructive agents. In these experimental trials it was found that Clover hay exposed to the weather for 14 days possessed distinct anti-rachitic properties when compared with the hay cured in the attic and out of the light. The hay cured in the light exhibited very good calcifying powers with rachitic rats; while the hay cured in the attic had no such powers.

NEW NEBRASKA FEED LAW NOW EFFECTIVE

The Nebraska state legislature recently passed a bill relating to commercial feedingstuffs which became a law in July. It provides that commercial feedingstuffs shall include all the feedingstuffs used for feeding livestock and poultry; except (a) whole seeds or grains; (b) whole underground hays, straws, cottonseed hulls and corn stover when unmixed with other materials, with this provision: "That it shall not include the unmixed meals or chops made from whole grain to which nothing has been abstracted, when such unmixed meals or chops are exchanged for whole grain of a like grind, or are manufactured, sold and delivered on the premises of the manufacturer, direct to the ultimate consumer."

J. W. Campbell, secretary of the Nebraska Millers Association, in commenting on the new bill says:

"As we understand it, this does not interfere with the present custom of grinding grists of grains brought to the mills by feeders.

"Every lot or parcel of commercial feedingstuff must be labeled with name and address of the manufacturer or person responsible for placing the feed on the market; the minimum net weight of the contents; the name or brand; the minimum per cent of crude protein, crude fiber and ash; the specific common name of each ingredient used in its manufacture.

"When the law goes into effect you must register

with the Department of Agriculture, at Lincoln, a label or brand of each commercial feedingstuff, and furnish the department a 1-pound sample of each, under affidavit as to correctness.

"You cannot change the ingredients or lower the guaranteed analysis of any brand without first filing with the department a statement thereof and furnishing a new sample of the goods.

"You must pay a tax of 10 cents a ton on all commercial feedingstuff sold or distributed.

"The department of agriculture will furnish the tax tags in any denominations you may need, and each lot of feed shipped in bulk and each parcel sold must have a tax affixed showing that the tax has been paid.

"When sold at retail in bulk or in containers belonging to the purchaser, you must give the buyer tax tags to cover every sale.

"The tax fee does not apply to the sale of unadulterated wheat, rye and buckwheat bran, nor to the sale of wheat, rye and buckwheat shorts, sold in Nebraska."

A FEED MILL IN THE FAR NORTHWEST

In the far Northwest, on the Great Northern right of way, is the feed mill of the United Milling Company, in Silvana, Wash., a plant of 90 tons' daily capacity. The feed brand which has earned



ELEVATOR OF THE UNITED MILLING COMPANY, SILVANA, WASHINGTON

a popular local demand and which is made here and merchandised by the Silvana Trading Union is "Co-operative."

The mill occupies a ground area measuring 100 feet in length, 50 feet in width. It is two floors in height and is of corrugated iron construction with a wooden inside finish. Chemical fire extinguishers have been provided and the mill has been made fire resistant throughout.

Grain storage capacity of 40 tons in wooden bins has been provided, and the warehousing unit is large enough to take care of five cars at once. One Monarch Grain Separator, made by Sprout, Waldron & Co., Muncy, Pa., is in use. There is a "Jay-Bee" Mill, supplied by J. B. Sedberry, Inc., Utica, N. Y., and this affords a compact automatic unit for grinding feed. The milling equipment also includes an attrition mill and two modern feed mixers. The conveying equipment embraces three belt conveyors—78 feet, and a 20-foot spiral conveyor.

Electricity is used both for lighting and power, and central station service is the means employed for securing current. Two Allis-Chalmers Motors constitute the main power unit, and the mill drive is a belt. Three motor trucks operate over a radius of 25 miles, delivering the mills' products.

The United Milling Company was purchased by the Silvana Trading Union, Silvana, Wash., a cor-

poration which has been established for 20 years. It will be noted in the illustration here, reproduced from a recent photograph, that the mill is in the process of being repainted, and the sign on the plant indicates that the management is fully aware of the advantages to be gained by utilizing the outside wall space for advertising purposes.

The officers include W. G. Grim, president; I. O. Nysether, secretary; and Normand Sneve, head miller.

THREE NEW STATES TO HAVE FEDERAL HAY INSPECTION

Three new states have adopted Federal hay inspection under the Hay, Feed and Seed Division of the Bureau of Agricultural Economics, beginning this fall. These are: Washington, Oregon and California, none of which has previously had the service.

WHERE LINSEED MEAL IS CONSUMED

Increased amounts of this feed have been used in the United States in recent years, largely because the increased demand for linseed oil has resulted in heavy crushings of domestic and foreign flaxseed so that more cake and meal has been available, even though exports have also increased, states the Grain, Hay and Feed Market News Service of the United States Department of Agriculture. Around 700,000 tons of cake and meal have been produced annually in this country for the past few years, while a little over 300,000 tons have been exported. This suggests a domestic consumption of nearly 400,000 tons.

The heaviest feeding of linseed meal, according to a study of farm feeding practices in 15 states, is found in the Northeast and the Northwest, where also the bulk of this feed is produced. In the Northwest, plants located in Minnesota and Wisconsin crush large amounts of the domestic flax crop, while seed from Canada and Argentina largely supplies the requirements of the crushers at Buffalo and points to the eastward. Smaller amounts of linseed meal are fed in other sections of the North, while limited amounts are consumed in some localities in the Rocky Mountains, but practically none is used in the South, doubtless because of local supplies of cottonseed meal there furnish relatively cheap protein.

Dairy cows received by far the largest amounts of this feed. Cows on the farms studied in New York were fed an average of 87 pounds per year, slightly more than the 83 pounds reported by Wisconsin. From this the amounts fed ranged downward through 57 pounds per year fed in Minnesota and 15 pounds in some dairies in Colorado to two pounds per year in South Dakota. Cattle other than dairy accounted for irregular amounts, doubtless because of the value of linseed meal in feeding growing and fattening animals and show stock. Fair amounts were also taken by poultry, although its use here was much less general than for dairy cows. Poultry requirements ranged from 12 pounds yearly per 100 head on Wisconsin farms down to two pounds in Kansas and less than one pound per head in Minnesota. Hogs received less than one pound per 100 pounds of gain in the important hog producing areas reporting this feed fed to swine and very limited consumption was indicated for sheep and horses.

Most, if not all, of the linseed meal and cake exported is crushed from imported seed since a drawback amounting to about \$5 a ton is allowed upon the exportation of the meal produced from imported flax. Nearly four-fifths of the exports of this feed go out through New York, while the bulk of the remainder is shipped through Philadelphia and smaller quantities through Baltimore. Very limited amounts are also exported from the Pacific Northwest. Around three-fifths of the total are taken by the Netherlands, while something less than one-fourth goes to Belgium. The United Kingdom and the Irish Free State also receive substantial shipments. German takings commonly run under 10,000 tons and hardly any is usually bought by Denmark, although the latter country received

130,000 tons in 1924. Canada and Norway purchase a little of this feed from the United States and the balance goes in scattered shipments to various nations.

OFFICIAL HAY GRADES REVISED

Revised hay standards as offered by the United States Secretary of Agriculture, and which now are effective, are given in detail as follows:

NEW STANDARDS FOR GRASS HAY

The class "Grass Hay," formerly included in the Timothy, Clover and Grass Hay standards, has been eliminated from Group I and a new hay group created entitled Grass Hay (Group V). This hay group, Grass Hay, has been formulated in such manner as to include the various cultivated kinds of grass hay such as Bluegrass, Redtop, quack-grass, Bermuda grass and cheat, also miscellaneous wild grasses, sedges and rushes, such as Colorado South Park hay, that are not considered as Upland Prairie or Midland Prairie by the hay trade.

HAY DEFINED FOR PURPOSES OF STANDARDS

In each hay group hay has been defined so as to include only those kinds of herbage in that group, and to exclude (1) herbage that is not cured, (2) straw of any kind, such as threshed grain, threshed or headed Timothy, threshed Alfalfa or threshed Redtop, (3) herbage not having recognized feeding value, (4) herbage that is coarse and woody, and (5) herbage containing more than 35 per cent foreign material. No such herbage can be graded under the United States hay standards, but it may be described by inspectors on Federal hay certificates.

REVISIONS TO SPECIAL GRADES

In all the hay groups the practice of employing special grades to supplement numerical grades has been retained but certain changes and additions have been made to the special grades as follows: All Groups: The special grade "High Green Color" has been changed to "Extra Green"; Group II Alfalfa and Alfalfa Mixed Hay—The old special grades "Soft" and "Fine" have been eliminated and new special grades entitled "Extra Leafy," "Leafy," and "Green" have been formulated; Group IV Johnson and Johnson Mixed Hay—A special grade for Coarse Hay has been created, applicable to all hay classes, which replaces the old grade "U. S. Coarse" heretofore used only in connection with the class Johnson.

In addition to the general revisions and additions described in the preceding paragraphs certain other specific changes have been made in the standards which are hereinafter described under the hay group names to which they apply.

REVISIONS—TIMOTHY AND CLOVER HAY STANDARDS

(1) In all classes except Clover and Clover Light Timothy Mixed a grade requirement has been added providing that the No. 1 grade cannot be applied if the Timothy seed has matured beyond the early dough stage. (2) A grade requirement has been added providing that in all classes no hay that is stained shall be graded higher than No. 3. (3) The descriptive color specifications for Clover hay have been eliminated and percentage color specifications substituted that are based on a Department method for accurately measuring the amount of natural color in hay. (4) The method for determining the percentage of green color in Timothy by closely estimating the percentage of green color in the leaf, stem and head areas has been changed to the method prescribed by the department for ascertaining the percentage of green color in Alfalfa, Prairie and Johnson hay. All color determinations are now made, therefore, by the same method. The effect of these modifications and changes to the color specifications (items 3 and 4) is to slightly widen the No. 1 grades and slightly narrow the No. 2 grades. (5) The class name Timothy Grass Mixed has been changed to Timothy Heavy Grass Mixed.

REVISIONS—ALFALFA AND ALFALFA MIXED HAY STANDARDS

(1) The No. 2 grade color specifications for hay of all classes has been changed from 30 per cent or more green to 35 per cent or more green. The effect of this change is to slightly narrow the No. 2 grades and slightly widen the No. 3 grades. (2) The word "Heavy" has been included in the class names Alfalfa Grass Mixed, Alfalfa Timothy Mixed and Alfalfa Grain Mixed, heretofore used, so that these names now read "Alfalfa Heavy Grass Mixed," etc. (3) The class Alfalfa Heavy Johnson Mixed, formerly Johnson Alfalfa Mixed, has been transferred from Group IV to Group II, and given single color specifications similar to the other hay classes in Group II.

REVISIONS—PRAIRIE HAY STANDARDS

(1) The No. 2 grade color specifications for hay of all classes has been changed from 30 per cent or more green to 35 per cent or more green. The effect of this change is to slightly narrow the No. 2 grades and slightly widen the No. 3 grades. (2) A grade

requirement has been added providing that in all classes no hay that is stained shall be graded higher than No. 2. (3) The definition for "midland grasses" has been changed so as to eliminate "other wild grasses, sedges and rushes" from the list of midland grasses. Such miscellaneous grasses, sedges and rushes are now included in Group V, Grass Hay. The new definition for midland grasses includes only four moist-meadow grasses that are commonly known to the hay trade as "midland grasses". The class Midland Prairie, however, may contain some of these miscellaneous grasses, sedges and rushes, providing more than 40 per cent of the hay consists of one or more of these specifically named midland grasses.

REVISIONS—JOHNSON AND JOHNSON MIXED HAY STANDARDS

(1) A grade requirement has been added providing that in all classes no hay that is stained shall be graded higher than No. 3. (2) The class "Johnson Alfalfa Mixed" has been transferred to Group II and renamed "Alfalfa Heavy Johnson Mixed."

FULL SHARE OF OHIO'S HAY BUSINESS REGULARLY GOES "TO THE LADIES"

Experienced grain and hay dealers who know the heavy hay tonnage which is cleared annually from the districts around Van Wert, and Lima, Ohio, will realize that the managership of the Van Wert Equity Company elevator, and the proprietorship of the Hurley-Buchholtz Company, at Lima,



MISS E. D. HURLEY AND MISS N. B. BEIBELL

Ohio, are man-sized jobs. The executives in charge, however, are both ladies.

Miss E. D. Hurley, sole owner of the latter concern, and a partner, founded this hay business about 10 years ago, and were successful in establishing a good trade from the first. Two years ago, Miss Hurley's partner married and sold out her interest to the present owner. Miss Hurley is optimistic regarding the business outlook. Lima is situated in one of the best hay sections of the state, and a high quality of Timothy, Clover and Mixed hay are always available. Prospects this year are better than for the last two, in the opinion of Miss Hurley.

Miss N. B. Beibell, manager of the Van Wert Equity Exchange since 1920, also handles a large volume of hay, as well as grain. Previous to the managership, Miss Beibell held the post of book-keeper, and there is no side of the business with which she is not thoroughly familiar. Both Miss Beibell and Miss Hurley, of course, exercise their own discretion in buying hay for their respective concerns, and are expert judges of quality.

HAY HIGHER IN NEW YORK MARKET

By C. K. TRAFON

The month under review in the New York hay market was featured by a general advance in prices, more especially on the higher grades. As a rule these made up a very small proportion of the receipts; and the latter, including all kinds, showed an extremely small total for the period. As a consequence the hay moved out just about

as rapidly as it came in so that there was no accumulation of supplies and no pressure to sell. While demand was checked by the hot weather generally prevailing and also by the fact that many dealers and consumers evidently had enough hay on hand to cover their immediate requirements and were disposed to hold off for lower prices, there was enough buying from day to day to cause advances of \$1@2 on the top grades. At times there was practically no No. 1 hay available and it was generally regarded as worth fully \$25, although it is not to be understood that this price could be secured on all the hay which shippers may send in as No. 1. Likewise No. 2 is quoted at \$23@24, with more disposition to hold really choice lots at the higher level; while No. 3 is quoted at \$21@23. Although demand for lower qualities has been slightly better, such hay has generally been rather hard to sell and with the larger part of the arrivals consisting of medium grades or lower some poor stuff has still been available at as low as \$18, other lots bringing up to \$20. Arrivals of new hay have been very small, farmers and shippers preferring to hold on rather than lose money in view of the inability of the market to absorb more than moderate quantities of the old crop. However, as the latter seems to be fairly well cleaned up, especially in the West, a steady increase in new crop arrivals is expected and preparations for shipment are already being made. With a record-breaking crop in sight, the official Government figure for tame hay being 101,000,000 tons, compared with 86,378,000 tons last year, it is not astonishing that buyers have been inclined to look for lower prices. At the same time conservative and well-informed traders would not be surprised to see really choice hay go to a still wider premium. In their judgment the demand for No. 1 may be much better than many seem to expect and they are convinced that a decidedly meager percentage of the production will be able to grade so high as much of the crop became excessively wet and over-ripe. It is reported that some new hay baled out of the field and grading about No. 2 sold at \$19@20, some of it of pretty fair quality.

FEED MARKET FIRM ON HIGHER GRAIN PRICES

The feed market turned quite firm during the week ending August 10 as a result principally of the sharp advance in grain prices, according to the weekly *Feed Market Review* of the United States Bureau of Agricultural Economics. Demand broadened materially but offerings of most feeds were limited and prices turned upward.

Wheat Feeds: Production of wheat feeds was only slightly larger at the principal milling centers than for the previous week. Northwestern mills increased their production slightly and grindings were smaller at the southwestern mills and altogether reflected the continued limited demand for flour. The present output of feed is being absorbed by the current demand and the filling of old orders, so that there is practically no accumulation of feed in storage. Mills are reported to be having some difficulty in making delivery on sales already made and this situation is expected to continue during the remainder of the month. While offerings of bran are more liberal than of middlings they are in active demand and prices were advanced about \$1 per ton during the week. Practically no middlings are being offered by the mills for immediate delivery but almost entirely for future shipments as practically their entire output has been sold for the next 30 days, according to trade reports. The demand for middlings continues very active and prices have been further advanced. Prices for deferred shipments of middlings have been advanced to near the spot basis. Other heavy wheat feeds have also advanced, with the possible exception of Red Dog at most of the markets.

Linseed Meal: The sharp advance in flax prices as a result of unfavorable weather in the Northwest strengthened the linseed meal market. There

was some improvement in the demand which was also a strengthening factor. Eastern markets were not quite so firm as these in the Central West because of a less active domestic demand in that territory. Production is not large but eastern mills are apparently anxious to dispose of current supplies at prevailing prices. Some export demand was reported by the eastern crushers which are running principally on imported flax seed.

Cottonseed Meal prices continued their upward trend with the market quite firm. A cotton crop of about 13,500,000 bales was indicated from the condition and acreage report on the first of August. This is about 4,500,000 bales smaller than last year's production and slightly smaller than the 1924 crop, from which about 2,125,000 tons of meal and cake were produced compared with 2,800,000 tons produced during the 11 months to July 1 from last season's crop. It seems probable, therefore, that the supply of cottonseed meal this season will be from 675,000 to 700,000 tons below last year's production. Cottonseed meal prices in the southwestern markets at the first of August were about \$3.50 per ton higher than at the corresponding time last year and reflect the smaller supply in prospect for the coming season. Transactions in cottonseed meal have been small as mills are slow sellers. Quotations for deferred shipment have been advanced to within 50 cents to \$1 of spot prices at most markets.

Gluten Feed offerings continue moderate and while demand is not of large volume it is sufficient to readily absorb the current supply. Resellers at Buffalo continued to offer gluten feed at about 50 cents below manufacturer's prices in order to stimulate sales. Manufacturers are offering feed more liberally for September shipment and in few mills are offering for August shipment, but most of the spot feed is being offered by wholesalers in the markets.

Hominy Feed: The demand for hominy feed exceeds the light production and prices have been advanced sharply both as a result of this increased demand and the advance in corn prices. Quite a few of the mills were reported out of the market and others have their output sold up for some time.

PLENTY OF HAY

A record truck load of hay was hauled recently in New Jersey. A carload of baled Alfalfa hay, 495 bales in all, was hauled in one load on a trailer



A CARLOAD OF HAY ON TRUCK AND TRAILER

truck. The outfit is owned by the Scholl Company of Newark, N. J., which specializes in Alfalfa hay. The accompanying photograph shows just how 495 bales look before being distributed to the horses of that territory.

LINSEED OIL ON INCREASE

An increase was noted in the output of mills crushing flaxseed for the quarter ending June 30, 1927, according to the report of the Bureau of the Census, Department of Commerce, Washington, D. C. There were 32 mills crushing flaxseed during that period and they reported a crush of 250,942 tons and a production of 167,230,923 pounds of oil.

These figures compare with 217,648 tons crushed and 144,950,005 pounds oil produced for the corresponding quarter of 1926, and 255,592 tons and 169,979,532 pounds in 1925.

The stocks of flaxseed in these mills on June 30, 1927, were 96,145 tons compared with 75,804 for the same time in 1926 and 63,182 in 1925. During the quarter imports of linseed oil amounted to 382,652 pounds compared with 10,164,773 in 1926 and 6,128,927 in 1925 and exports to 599,953 pounds in 1927 compared with 632,510 in 1926 and 577,085 in 1925.

FEEDS HIGHER IN N. Y. MARKET FEEDS HIGHER IN NEW YORK MARKET

By C. K. TRAFTON

Prices for practically all feeds have advanced sharply in the New York market, which has served to check business to an appreciable extent. The advance has been particularly striking in the instance of standard middlings which have advanced fully \$6.50, being quoted at \$43.10. This price, however, is almost wholly nominal as there is practically nothing on offer and stocks are extremely meager. It is worthy of note that some mills are asking a 50 cent premium for September shipment. Because of this great buoyancy middlings have gone to the remarkable premium of \$9 over Spring bran. Following the good sales noted in our last review as a result of the sudden radical price-cutting by the mills, bran prices turned sharply upward and this movement continued during July. As a consequence the spot basis is now \$34.80, or \$1.50 higher than a month ago. It is evident that the mills oversold themselves at the lower levels, as usual, as they have been consistently tardy on deliveries and in some cases have not made complete shipments on their July contracts. In fact, the above quotation is almost wholly nominal as there is not much offered from any quarter. One of the largest mills seems to be entirely out of the market as far as shipments from Buffalo and Minneapolis are concerned, while the inability of the largest local producer to fully satisfy the small demand which has appeared at these high prices is demonstrated by the fact that some of their city customers have been forced to the unusual expedient of securing supplies in western markets. Red-dog has shared in the general upturn, being quoted at \$53.60, which has restricted business to extremely small volume. Early in the month there was a fair de-

the same reason, and also because the price is higher than at the opening of the 1926 season, they show little interest in new crop offers at \$39 for September-October-November shipment.

NEW FEED BRANDS

"MALTO" dairy feed. People's Milling Company, Muskegon, Mich. Filed June 6, 1927. Serial No. 250,094. Published July 12, 1927.

"MILKING TIME BRAND" stock feed, namely, brewers' dried grains. Badger Grains & Feed



Company, Milwaukee, Wis. Filed May 26, 1927. Serial No. 249,565. Published July 19, 1927.

"RED BAND" cornmeal and feed. Model Mill Company, Inc., Johnson City, Tenn. Filed June 6, 1927. Serial No. 250,085. Published July 19, 1927.

"PIG-N-HOG" prepared stock feed. The Quaker Oats Company, Chicago, Ill. Filed March 14, 1927. Serial No. 245,749. Published July 26, 1927.

Poultry and stock feeds. The Quaker Oats Company, Chicago, Ill. Filed March 12, 1927. Serial No. 245,655. Published July 26, 1927.

"QUAKER STATE" stock feeds, including poultry feeds comprising chick starter, chick grains, growing mash, egg mash, scratch grains, developing feed, and crate fattener as well as other feeds such as dairy rations and pig meal. Blank & Gottshall Company, Inc., Sunbury and Williamsport, Pa. Filed June 6, 1927. Published August 2, 1927.

"MARMICO" dairy feed. Maritime Milling Company, Inc., Buffalo, N. Y. Filed May 19, 1927. Serial No. 249,229. Published August 2, 1927.

"CREMO" dairy feed mixture consisting of wheat bran, ground oats, Alfalfa, molasses, corn feed meal, corn gluten feed, linseed meal, cottonseed meal and salt. Moore Bros., doing business as Holdenville Mill & Elevator Company, Holdenville, Okla. Filed April 22, 1927. Serial No. 247,863. Published August 2, 1927.

Trademarks Registered

229,979. Wheat flour, stock and poultry feeds. The Coles Company, Middletown, Conn. Filed March 22, 1926. Serial No. 228,975. Published April 26, 1927. Registered July 12, 1927.

HAY MARKET CONTINUES STEADY

The Martin Grain Company of St. Louis, Mo., in its letter of August 9, says:

The Timothy hay market continues to rule very firm on high grade hay which is wanted on local account. Good No. 1 Timothy would sell well, an occasional car of high No. 2 would sell relatively well, but everything else is very dull and hard to sell. The majority of the receipts is poor stained hay and hay out of condition for which there is little outlet except at very low figures.

Light Clover Mixed hay steady on No. 1 which is in good demand but lower grades are dull.

Heavy Clover Mixed hay steady with a fair demand.

Pure Clover hay in scant offering and fair demand. Some Clover on the market but the quality is poor. Good high grade Clover would sell relatively well.

Alfalfa situation unchanged. There is a good demand for the better grades of Alfalfa but the lower grades are very dull.

Prairie hay steady, offerings are light and demand fairly good for No. 1 but off grades are slow.

THE GRAIN MARKET SITUATION

By G. A. COLLIER
Grain, Hay and Feed Market News Service United States
Bureau of Agricultural Economics.

The grain market strengthened materially during the last half of July and the first half of August, principally as a result of rust development in Spring wheat in the American Northwest and possibility of frost damage in the Canadian Prairie Provinces, together with the backwardness of the corn crop and unsatisfactory threshing returns on oats. The prospect of a good rye crop and increased offerings of this grain weakened the rye market but the barley market held fairly steady although prices declined to a new crop basis.

The Winter wheat crop showed a further reduction of more than 25,000,000 bushels from the July 1 estimate and at the first of August was estimated at about 553,000,000 bushels. A large part of this reduction was in Hard Winter wheat principally in Kansas and Nebraska, although there is a reduction of about 5,500,000 bushels in Soft Winter wheat in the principal producing States.

The condition of Spring wheat on August 1 was 86.4 per cent of normal and indicated a production of 298,000,000 bushels or about 24,000,000 bushels above the July 1 forecast and about 93,000,000 bushels over that harvested last season. Since the first of August, however, there has been considerable rust damage and much of the wheat was not yet out of danger, especially in northern districts where plantings were two to three weeks late. The crop through central Minnesota, in southeastern South Dakota and in the Red River Valley of North Dakota and Minnesota has been seriously damaged by rust during the past two weeks, according to reports from specialists of the United States Bureau of Plant Industry.

Of the Spring wheat reported August 1 slightly over 80,000,000 bushels in the four important producing States of Minnesota, North Dakota, South Dakota and Montana, is Durum wheat. The Durum crop according to the August 1 estimate will be around 80 per cent larger than last year in these states.

A slight increase in the Northern Hemisphere wheat crop over that of last season is indicated by reports from 22 countries received to date which total 2,500,000,000 bushels compared with 2,460,000,000 bushels produced by the same countries last year. The most uncertain factors present are the final outturns in Canada and Russia. The Canadian crop made rapid progress during July and was officially estimated at the first of August at 357,000,000 bushels, an increase of about 32,000,000 bushels over the July 1 forecast. The crop is late, however, and the possibility of early frost damage of rust infection may materially change the situation. Slight frosts have already occurred in the southern part of Saskatchewan, which is the heaviest producer of the Prairie Provinces. Recent trade reports have suggested some reduction in the Russian crop. European countries so far reporting show an increase of 52,000,000 bushels over last season while the North African crop, which competes with our Durum, is about 10,000,000 bushels larger than the 1926 harvest.

The United States rye crop was estimated August 1 at 61,500,000 bushels, about the same as the July 1 estimate, but more than 20,000,000 bushels larger than last year's harvest. Rye production in 12 European countries, including Poland, reporting to date amounts to around 367,000,000 bushels, which is 40,000,000 bushels above the estimate for the same countries last year. Acreage and condition reports for other countries indicate that this increase will likely be maintained for Europe as a whole, exclusive of Russia.

The quality of the Winter wheat crop is reported at 88.5 per cent compared with 90.1 per cent the 10-year average. In general the quality is good in sections where good yields were obtained and vice versa. Much of the Winter wheat is lower than usual in gluten content not only in the central western states but also in Washington, Oregon and northern Idaho. With a large percentage of the offerings showing lower gluten content the prem-

iums for high protein wheat have widened materially this season and during the past few weeks particularly high protein wheat has been in very active demand at advancing prices.

The Spring wheat markets, however, have led the advance in wheat prices, reflecting the unfavorable developments during the past two weeks in the Spring wheat crop. Milling demand has been of only moderate volume because of the limited sale for flour. Up until the past two weeks all offerings were being readily absorbed and there was scarcely the seasonal increase in the market stocks. Since the first of August, however, market stocks have increased materially and on August 6 about 46,000,000 bushels of wheat were in store in the markets reporting to the United States Department of Agriculture.

The movement of Soft Winter wheat to market is getting well under way and the quality of this wheat is also below that of last year. Considerable smutty and light weight was being received at St. Louis and a large percentage of the Soft wheat arriving at eastern markets from Pennsylvania, Maryland and Virginia also contained considerable smut. Southern mills have been active buyers of new Soft Winter wheat and some has moved to eastern seaboard for export. Because of higher rates from Gulf ports more wheat is being exported though the Atlantic Seaboard than last season, according to trade reports. Some United States wheat has been shipped out via Montreal.

Corn prices have advanced about 10 cents per bushel during the past month. This advance has been caused principally by the backwardness of the crop and the fear of frost damage to a large percentage of the crop, which is very late. Conditions at the first of August indicated a crop of about 2,385,000,000 bushels, or about 260,000,000 bushels below that of last year. The condition of the corn crop improved during July but much of the crop is so late that only an unusually late, warm fall will prevent serious frost damage. Abandonment will undoubtedly be considerably above average throughout most of the corn belt due to poor stands and failure of the late planted crop to make satisfactory growth. Conditions are poor in Ohio, very poor in Indiana and in Illinois the worst on record. In Missouri stands are irregular and the crop is sufficiently late to be in danger of frost damage. The crop is good in Kansas and Nebraska and also in Iowa, but in the latter State it is from one to 10 days late. In Oklahoma, Texas and Louisiana the crop is considerably above the average. Harvesting of the new crop has already begun in these southwestern states.

Supplies of old corn, according to the best information available, are considerably less than at this time last year, indicating a very small carryover this season. Market stocks are still fairly large but have been reduced materially during the past month. Demand has not been of large volume but movement has been very light and all offerings have been readily absorbed at the steadily advancing prices.

Prospects for this season's oats crop at the first of August were not so good as at the first of July and a crop of about 1,279,000,000 bushels is now in prospect, which is only about 29,000,000 bushels above last year's crop. Threshing returns which are now beginning to come in from the important producing areas of the North Central States show very unsatisfactory outturns and considerable light weight grain. These unfavorable reports have given the oats market independent strength during the past two weeks and the market is tending upward. Stocks of grain in the markets have become very small, being only about one-third as large as at this time last year and about half as large as two years ago. It is too early to tell definitely what the final outturn may be but present indications are that good quality grain is likely to bring relatively firm prices during the coming season.

Rye prices declined about two cents per bushel for the month ending August 10 compared with an advance of about four cents in wheat prices for the same period. Increased offerings of new crop grain with no corresponding improvement in either do-

mestic or export demand were the principal causes of the decline in rye prices.

The outlook for barley improved during July and at the first of August a crop of 249,000,000 bushels was in prospect, which amount has been exceeded only once and that was in 1918 when the crop totaled 256,000,000 bushels. Receipts at the markets to date show much good quality barley which has been in good demand at fairly steady prices following the decline at the first of August when prices changed from the old to a new crop basis.

The market for flax has been holding fairly steady with crushers taking the very limited receipts. Offerings of Argentine flax continued liberal and the domestic market has been influenced probably more by the market changes in that country than by the crop conditions in the United States. During the past week, however, domestic crop conditions were the dominant feature in the market and prices advanced about 10 cents per bushel. Supplies of flaxseed in commercial stocks and in crushers' hands were about 1,000,000 bushels larger on the first of July than a year ago. This would be equal to less than two months' crushings at the rate reported during the past quarter. Supplies of flax in Argentina, however, are still fairly large and will likely be sufficient for market requirements until the domestic crop is available.

TEN CENTS AVERAGE PENALTY FOR HEATED WHEAT

A \$2,000,000 avoidable loss annually resulting from heat damage to wheat has been found to exist through a study made of that subject by officials of the United States Department of Agriculture. The damage is of a character that is difficult to deal with, and a small quantity of heat-damaged kernels in a lot of wheat brings down the price decisively, the Department has found.

The difference in price per bushel between sound wheat and wheat containing heat-damaged kernels ranged from 5 cents to 15 cents or more in extreme cases. During one six-month period when arrivals at Kansas City were under observation it was estimated that the losses in that market alone were \$220,920.

D. A. Coleman and B. E. Rothgeb, marketing specialists of the Department of Agriculture, found that the prevalence of heat-damaged wheat in any market has a tendency to depress the price of all other wheat in that market. Thus the total loss caused by damaged wheat may be considerably higher than can in this way be estimated. Other markets suffered losses in proportion to their volume of business and the extent of the heat damage in the wheat handled by them.

The chief causes of heat-damage to wheat, these specialists report, are unfavorable weather conditions at the time of harvest and faulty methods of handling the crop, such as improper stacking, during the period from harvest to the time the crop is marketed. The condition in which the wheat is stored on the farm or at the country elevator is an important factor. In recent years, they say, a great deal of damage to wheat has been caused by stacking green or wet wheat, or by threshing such wheat when it was too green, or too wet, and storing it in bulk, without first putting it in suitable condition for storage. Under such conditions rapid intramolecular respiration takes place in the kernel and heat develops. This action is speeded up as the temperature rises. According to the intensity of the heat developed the wheat kernels become darkened in color, the gluten is weakened, or the wheat becomes unfit for human consumption.

INHERITANCE IN WHEAT

In a varietal cross between Sevier and Dicklow wheats, made at the Logan, Utah, experiment station, high acre-yields were obtained wherever the strains were isolated. Three forms highly resistant to black stem rust, also resulted from the cross. In crossing pure lines of Sevier and Federation wheats, strains were isolated which had a much greater head density than either of the parent wheats.

CONVENTION CALENDAR

October 10-12.—Annual convention of the United States Feed Distributors Association, at Omaha, Neb.

October 10-12.—Annual convention of the Grain Dealers National Association, at the Fontenelle Hotel, Omaha, Neb.

October 10.—Annual meeting of the National Terminal Weighmaster Association at the Fontenelle Hotel, Omaha, Neb.

October 10.—Chief Grain Inspectors National Association, Hotel Fontenelle, Omaha, Neb.

NORTHWEST DEALERS MEET

George Paulson of Cascade, Mont., was unanimously elected president of the Northwestern Grain Dealers Association at the close of the morning session of the thirteenth annual convention which opened in Great Falls, Mont., on July 15.

Other officers, all unanimously elected on the report of the Nominating Committee, are: Otto Paulson, Havre, vice-president; A. J. Maly, Great Falls, treasurer; Oscar Harlem, Chinook, A. F. Strobehn, Great Falls, A. E. Barkemeyer, Great Falls, H. Beckwith, St. Ignatius, Dan Kirby, Great

Falls, directors. Miss Sue Swearingen of Great Falls is acting secretary of the Association.

Officers of the Association during the past year were: L. L. Dean, Conrad, president; G. H. Beckwith, St. Ignatius, vice-president; A. J. Maly, Great Falls, treasurer; J. C. Templeton, Great Falls (deceased), secretary.

Mr. Dean called the convention to order and the visitors were welcomed by Mayor Harry B. Mitchell. W. N. Smith, vice-president of the Montana Flour Mills Company, responded. The reading of the minutes, report of the treasurer and election of officers concluded the morning session.

In the afternoon were addresses by A. H. Bowman, state commissioner of agriculture, and Charles Quinn, secretary of the Grain Dealers National Association, who came from Toledo. A round table discussion of several matters of interest to the dealers closed the meeting. The annual banquet was held in the evening with W. N. Smith as toastmaster.

Addresses by Congressman Scott Leavitt, H. A. Martin, manager of the grain department of Kerr-Gifford & Co., Portland, Ore., and by W. T. Giese, chief of the division of grain standards, Helena, were heard on the second day.

Nokely, transportation commissioner of the Chamber of Commerce, on behalf of the Toledo Produce exchange.

CONVICTION AFFIRMED

The Department of Justice has been advised that the Circuit Court of Appeals for the second circuit has affirmed the judgment of conviction in *Spencer Kellogg & Sons, Inc., vs. United States*, given in the Federal court for the western district of New York for violation of the Elkins anti-rebate law in that the Kellogg company gave shippers an allowance out of the sums paid it by the railroads for elevating grain for them, as an inducement to shippers to route their grain so it would pass through the Kellogg elevators at Buffalo.

Judge Manton, who wrote the opinion of the court, followed the lines of the argument made in the brief in the case written by William J. Donovan, assistant to the Attorney-General, and Mr. Collins on this novel application of the anti-rebate law especially in that the judge said "the application of the statute is not limited to shippers and carriers, but includes and punishes any person or corporation whose intended acts result in the transportation of property at less rates than those mentioned in the tariffs lawfully published and filed by common carriers." Continuing the judge said: "Nor is it essential to convict, within the terms of the statute, to prove that there was co-operation by a common carrier. The result forbidden by the statute was accomplished by plaintiff in error's payment to consignee and shippers and resulted in shippers receiving their transportation at rates less than those named in the tariffs."

Quoting from *United States vs. Koenig Coal Co.*, Judge Manton said that "whether the person committing the act is shipper or carrier is not determinative." The elevator company was neither a shipper nor a carrier but merely an agent hired by the carrier to perform elevation service in the transfer of grain from the holds of vessels at the port to the cars of the railroads. The railroads protested against the elevator company giving any part of the money they paid it to shippers to induce them to route their grain so that it would pass through the elevators of the elevation agent. Usually a rebate is conceived to be a payment made by a carrier to a shipper. The rule that has been laid down by the lower courts in the case, which is expected to go to the Supreme Court of the United States, seems to be that anyone who enables a shipper to get transportation for less than the published rate is guilty of violating the Elkins Act.

RATES FAVOR IOWA

An instance of the many alleged discriminations in freight rates against southwestern wheat, brought forward at Wichita, Kan., in the hearing of the Interstate Commerce Commission, related to tariffs applicable to Sac City, Iowa, and Manhattan, Kan., respectively.

The wheat rate from Sac City to New Orleans, La., by way of Omaha, Neb., it was shown, is 33½ cents per 100 pounds on the transit balance, while from Manhattan, Kan., to New Orleans by way of Kansas City, Mo., 181 miles less, is six cents higher.

RELIEF IN HAY RATES

The Interstate Commerce Commission has granted permission to railroads having lines from hay producing points in Michigan, Ohio, and Indiana, to establish reduced proportionals on hay to Ohio River crossings, Cincinnati to Evansville, and from those states of origin to Virginia cities, with a view to giving relief to shippers of hay desirous of getting into southeastern markets on better terms in comparison with shippers of hay from New York. Reductions run along about 7, 8, 9, and 10 cents per 100 pounds. The carriers have been given the right to publish such reduced proportionals on 10 days' notice.

THE GRAIN WORLD

IMPORT figures for the first nine months of the current cereal year (from August to April, inclusive) show wheat imports to have totaled 1,697,035 tons (62,349,000 bushels) as compared with 1,145,900 tons (42,100,000 bushels) during the corresponding period of the year 1925-26. The export embargo on wheat has been extended for another year. Some doubt has been expressed of the efficacy of the prohibition on the manufacture of cakes and pastry from wheat flour in effecting any great saving to the country. An interesting observation is the increased importation of rye flour, the use of which is authorized. During the first eight months of the current cereal year imports of rye were 8,680 tons (342,000 bushels) as against 6,865 tons (270,000 bushels) during the corresponding period last year, and of rye flour 1,947 tons (21,900 barrels) as compared to only 118 tons (1,300 barrels) for the first eight months of the past cereal year.—*Foodstuffs 'Round the World.*

WHEAT exports of 2,983,000 bushels from the United States for the week ending July 23 were the heaviest, with one exception, since April. Total exports of wheat and flour from July 1 to 23 this year amounted to 7,110,000 bushels, compared with 14,655,000 last year.

TOTAL production of rye for European countries actually reported up to August 1 is 438,000,000 bushels—which is 63,000,000 bushels above the estimates for the same countries last year.

TRANSPORTATION

MEMPHIANS WIN ARGUMENT

A finding of undue prejudice and an order to remove it not later than September 19, were the two results of the Interstate Commerce Commission's hearing of the case wherein the American Grain & Hay Company, of Memphis, Tenn., assailed the Illinois Central Railroad. It was shown that the railroad had failed to maintain the same through rates via Memphis (with transit arrangements) as it maintains via East St. Louis and Cairo, Ill. The result, said the Commission, was prejudice to Memphis. Iowa, Illinois, Minnesota and Wisconsin were the states containing the points of origin involved, while the destinations affected were in Arkansas and Texas.

DUMBNESS OF RAIL TRAFFIC DEPARTMENT HELD UNREASONABLE

The Globe Grain & Milling Company, San Francisco, Calif., in order to do away with the annoyance of being billed continually for grain never shipped, filed complaint against the Santa Fe Railroad, and has been supported in the controversy by Examiner W. A. Maiden, who heard the case for the Interstate Commerce Commission.

Bills were rendered in the case in point, in accordance with the tariff minimum of 60,000 pounds per car of bulk barley and corn. The cars furnished were of only 50,000 pounds' capacity. Putting the matter tactfully, the examiner said the carriers should be authorized "to waive the undercharges." Hereafter the charges will be assessed on basis of actual weight in proportion to the charge for the theoretical minimum charge for 60,000 pounds.

RAILS FORCED INTO CO-OPERATION WITH BARGE SERVICE

It is reliably reported that by September 15, the Interstate Commerce Commission will have ordered joint rail-barge rates in compliance with its findings announced this month. Establishment by the Chicago Great Western and other roads of through routes and joint rail-barge and rail-barge-rail rates between St. Paul and Minneapolis, Minn., and Fargo, N. D., and points in Illinois, Indiana, Iowa and Missouri in connection with the barge line of the Inland Waterways Corporation between Dubuque, Iowa, and St. Paul and Minneapolis was found by the Interstate Commerce Commission to be "desirable end in the public interest."

The railroads affected are the Chicago Great Western, Chicago, Milwaukee & St. Paul, Chicago, Burlington & Quincy and the Illinois Central. With the exception of the Illinois Central the rail carriers were wholly averse to participating with the barge line in through routes and joint rates, particularly in differential rates. Most of them have single-line routes of their own between Chicago and the Twin Cities and they urged that they can ill afford to share the traffic with the barge line. They ventured that there is no public necessity for additional routes and that the Commission had no legal power to order them established. They also questioned the economy of substituting for a rail haul a 250-mile water haul requiring a breaking of bulk and expressed the usual railroader's doubt as to whether barge navigation on the upper Mississippi is physically or commercially feasible.

In holding that the establishment of the joint rates are desirable in the public interest, the commission also decided they should be constructed by subtracting from the contemporaneous all-rail rates between the same points differentials equivalent to

15 per cent of the contemporaneous all-rail rates between Dubuque and the Twin Cities. "We further find," the Commission said, "that just, reasonable and equitable divisions of such rates would be arrived at by a prorated basis, using as factors the contemporaneous first class rail rate between Dubuque or the Twin Cities and the interior point and the contemporaneous first class barge rate between Dubuque and the Twin Cities."

SEATTLE FORCES UNITE

The Seattle, Wash., Chamber of Commerce has joined in the fight begun by the Seattle Port Commission, and in co-operation with the Merchants Exchange for the abolition of the 10 per cent differential in freight rates enjoyed by Portland in grain shipments from the territory south of the Snake River. Port Commissioner G. B. Lamping explained the plans of the commission in seeking a reopening of the case before the Interstate Commerce Commission. "We have been in this battle for a long time," said Chairman Nathan Eckstein, of the Chamber committee, "and intend to stay in it until the differential is abolished. With any movement that has for its purpose the elimination of this differential we are in full accord."

"CHECKMATE" RATES PREVENTED

The Interstate Commerce Commission has found not justified the proposed increased proportional rates on grain and its products from Colorado, Kansas, and Nebraska points when destined to Gulf ports for ocean shipment. The rates were to apply when the grain or flour movements were beyond Kansas City and Wichita over the Santa Fe, Rock Island, or Missouri Pacific.

These proposed tariffs were intended to checkmate the outbound proportionals from Kansas City and Wichita, published by the Kansas City Southern, C. & A., Katy, and the Frisco. In regard to the justification of the railroads seeking the increase, the Commission said that a desire to keep grain on their rails was not sufficient.

WESTERN RATES RECONSIDERED

Proposed freight rates on grain and milling products over the Wells-Rogerson cutoff, believed to be discriminatory to Ogden and other Utah points, will not go into effect pending a thorough investigation of the protest being made by the Ogden Chamber of Commerce, it was agreed today by F. W. Robinson, vice-president in charge of traffic of the Union Pacific Railroad, following a protracted conference with a large number of shippers in Ogden.

At a recent conference Mr. Robinson said that he regretted that both sides of the story had not been heard before the Union Pacific agreed to grant the request of the San Francisco Chamber of Commerce for a rate of approximately five cents a hundredweight lower over the cutoff from Rogerson, Idaho, to Wells, Nev., than via Ogden.

TOLEDO RATES PENDING

Increased freight rates on grain, grain products and byproducts, between Toledo and cities in southern Ohio and parts of West Virginia and Kentucky, did not go into effect August 1, as was expected by some shippers. Both the Interstate Commerce Commission and the Ohio public utilities commission announced that the proposed raise could not go into effect until a further hearing is held.

The rates would have meant an increase of from two to four cents on 100 pounds. Suspension of the increase was granted upon the request of W. I.



INDIANA

The elevator at Deedsville, Ind., has been rebuilt. It is now handling grain, feed and coal.

Electric power is being installed for the Lucerne Co-operative Elevator Company of Lucerne, Ind.

A new truck dump has been installed by the Bangersville Grain Company of Bangersville, Ind.

The O. L. Barr Grain Company of Bicknell, Ind., has installed a hammer mill and a 35-horsepower motor.

The Francisco Elevator of the Princeton Milling Company of Princeton, Ind., has been bought by Joe Craig.

Motors of 25 horsepower are being installed in the plant of the Sugar Creek Grain Company of Thorntown, Ind.

The Gar Creek Elevator has been moved to New Haven, Ind., where it will be placed on the property of Stiefel & Levy.

A 50-horsepower electric motor has been installed to operate the hammer feed mill of the Farmers Elevator Company at Knox, Ind.

Kraus & Apfelbaum have leased the old J. R. Dietrich Elevator at Bremen, Ind. F. E. Bowlby, manager of the latter, took charge.

The capital stock of the Rosston Grain & Lumber Company of Rosston (Zionsville P. O.), Ind., has been decreased from \$25,000 to \$16,000.

The Farmers Elevator Company of Carmel, Ind., has sold its interests in the elevator to Oscar Moffitt who has changed the firm name to Oscar Moffitt & Sons.

Several improvements have been made by the Farmers Co-operative Elevator Company of Clay City, Ind. Improvements cost \$3,000. The driveway has been lowered and three electric motors installed.

The coal handling facilities of the Farmers Elevator Company of Remington, Ind., have been improved. The old bins were torn down and new bins of reinforced concrete erected. Coal unloading machinery has also been installed.

The Uniondale Grain Company has been incorporated at Uniondale, Ind., capitalized at \$15,000. The company will operate a grain elevator and buy and sell grain. The incorporators are Oscar L. Schwartz, Chester H. Eichhorn, Howard Gilbert and Wells Newhard.

IOWA

A. J. Leak's elevator at Audubon, Iowa, has been remodeled and repaired.

The Farmers Elevator Company of Quimby, Iowa, has been dissolved.

W. Brunskill has leased the Falde & Angle Elevator at Hawarden, Iowa.

The Stockdale Elevator at Lakota, Iowa, has been bought by J. P. Schissel & Son.

Business has been discontinued by the Farmers Grain Company of Granger, Iowa.

T. P. Wade & Son has sold his elevator at Ackley, Iowa, to J. P. Lacey and R. B. Lacey.

The Lowry Elevator at Westfield, Iowa, has been bought by E. R. McFarland of Elk Point.

F. F. Finegan succeeds H. W. Grill as manager of the Farmers Union Elevator at Denison, Iowa.

The elevator is being rebuilt for the Farmers Elevator & Shipping Association at West Union, Iowa.

Remodeling has been done to the Crawford Elevator at Ida Grove, Iowa, and equipped with electric power.

The Quaker Oats Company has purchased the Cannon Bros. elevators, located at Paulina and Granville, Iowa.

A truck dump has been installed and elevator repaired for the Independent Elevator Company of Lanesboro, Iowa.

The old building of the Farmers Elevator Company at Sheldon, Iowa, was wrecked and a new one has been built on the site.

The charter of the Farmers Elevator Company of Spencer, Iowa, has been renewed for another 20 years. R. T. Pullen is president.

A Chicago firm headed by Fred W. Simpson has bought the concrete elevator at Des Moines, Iowa, formerly operated by the Iowa Corn Products

Company. The plant consists of a large concrete elevator with capacity of 250,000 bushels.

The New Hartford Elevator Company of New Hartford, Iowa, has completed a frame ironclad addition to the warehouse at the elevator.

The old Spracher Elevator at Sibley, Iowa, has been bought by Wiley & Greig. It was managed by Barney Graves for the Betts Grain Company.

The site and buildings of the old Farmers Elevator Company at Joice, Iowa, have been bought by the recently organized Farmers Elevator Company.

The elevator and coal business of the Farmers Elevator Company at Latimer, Iowa, has been bought by the Fullerton Lumber Company of Latimer.

M. J. Streit has resigned as manager of the Farmers Grain Company of St. Benedict, Iowa. He had gone with the La Budde Feed & Grain Company at Algona, Iowa.

The North Iowa Grain Company has taken over the grain, coal and grinding business at Colo, Iowa, formerly operated by the Lounsberry Lumber Company. Art Allen is manager.

The elevator of K. S. Myers of Milford, Iowa, has been sold to Ed Stockdale of Estherville and Fred Hankins of Cloverdale. The business is being operated as Stockdale & Hankins.

Two grain elevators of the Farmers Elevator Company at Traer, Iowa, have been sold at public auction to the group of farmer directors who were creditors of the old company. They plan to reorganize it on a co-operative basis.

The Christensen-Pierce Grain Company of Fort Dodge, Iowa, has been dissolved as a partnership. George Christensen has returned to his former brokerage business and Mr. Pierce is now manager of the Beach-Wickham private wire.

The Arthur Co-operative Elevator Company of Arthur, Iowa, has been incorporated capitalized at \$15,000. The directors are Joe Glade, William Burgoyne, William Segerstrom, L. W. Kuhl, W. C. Taylor, Adam Hemer and A. H. Sheldon.

SOUTHERN AND SOUTHWESTERN

The W. B. Johnson Grain Company has built a 200,000-bushel elevator at Alva, Okla.

The grain business is to be discontinued by the McManus Grain Company located at Oklahoma City, Okla.

The grain office of the Charles Cox Grain Company at Enid, Okla., has been moved to Carmen, Okla.

An air dump and loading spout have been installed for the Robinson Grain Company of Yewed, Okla.

R. F. Lanham has resigned as manager of the Lebanon, Ky., branch of the Haydon Mill & Grain Company.

A concrete wharf and new platform are being built at Weatherford, Texas, for the Dorsey Grain Company.

The 100,000-bushel elevator being built at Nashville, Tenn., for the Ralston-Purina Company is to be completed in September.

John A. Mugg is now connected with the Harde-man-King Grain Company at Oklahoma City, Okla. He was formerly at Waco, Texas.

The Dixon Grain Company has been incorporated at Houston, Texas, capitalized at \$25,000. E. S. Dixon and A. P. Dixon are interested.

The Farmers Elevator Company of Electra, Texas, has been declared insolvent. J. B. Ferguson is in charge temporarily of the business.

Additional storage bins are to be built to the property of the Linton Grain Company of Chickasha, Okla. S. J. Goldsmith is vice-president.

The elevator of the McComb Farmers Elevator Company at Hancock (p. o. McComb), Okla., has been repaired and equipped with an electric motor.

A 20,000-bushel grain elevator is to be built at South Plains, Texas, for Burton Thornton and Gilbert Bean of Lockney, Texas, who have a site it is reported.

The contract has been let by the Paris Milling Company of Paris, Texas, for the erection of additional elevator storage of 200,000 bushels to the Jones-Hettelsater Construction Company. This will

make the storage 300,000 bushels. The Paris mill has capacity of 500 barrels daily. The new storage will be completed by the end of October.

The C. A. Downing Elevator Company of Grace-mont, Okla., is siding its elevator with iron, putting on an iron roof and having a new bin added to the coal house.

The hay, grain, flour, feed, etc., business which was conducted at Greenville, N. C., by Kittrell & Barrish is to be conducted by Mr. Kittrell under his own name.

James M. Scott, Clyde W. Scott and R. L. Scott have incorporated at Fort Worth, Texas, as the Scott Bros. Grain Company. The firm is capitalized at \$200,000.

The 421-foot extension is completed to the Public Grain Elevator at the Turning Basin, Houston, Texas, more than doubling the capacity. Machinery has been installed.

The elevator of the Bailey Elevator Company at Muleshoe, Texas, is being overhauled and equipped with new legs and spouts, and Fairbanks-Morse Ventilated Enclosed Motor.

The Belt Mill & Grain Company of Oklahoma City, Okla., is planning to expand. Storage tanks, new bins, several grinders and other apparatus are included in the plans. Frank Hardin is manager.

The Blue Grass-Elmendorf Grain Corporation of Lexington, Ky., has finished the removal of its elevator and warehouses which was necessitated by the construction of a new street through its property.

The Celina Mill & Elevator Company of Celina, Texas, will build a belt conveyor from the concrete tanks to the elevator. The company recently installed a corn sheller operated by a 40-horsepower motor.

The interest of John C. Davis in the firm of Hudson & Davis, dealers at Danville, Ky., in grain, hemp and seed, has been sold to his partner, Banks Hudson. Mr. Davis has retired after 44 years in business. The business is to be conducted as Banks Hudson, Inc.

The controlling interest in the Orange Grain Company at Orange, Texas, has been bought from Bruce Carter by W. F. Andrews. Mr. Carter and Clyde Oldham have bought the branch plant of the American Maid Flour Mills Company at Beaumont and will operate it.

The J. W. Stewart Company of Chelsea, Okla., will re-equip the elevator at Inola, Okla., acquired last fall. Some additional new equipment also may be ordered for the five-story feed mill recently bought which is operating in connection with the two Stewart Elevators at Chelsea.

Frank Gresham, formerly of Guthrie, Okla., is planning the incorporation of the Oklahoma Terminal Elevator Company which operates the plant formerly known as the Purcell Mill & Elevator Company at Purcell, Okla. It has a capacity of 250,000 bushels. The capital stock of the firm will be \$100,000. They will also engage in the manufacture of special mixed feeds for which a separate organization to be known as the Gresham Milling Corporation will be formed. Offices have been opened at 509 Grain Exchange, Oklahoma City, Okla., by the Oklahoma Terminal Elevator Company.

OHIO AND MICHIGAN

The elevator at Lykens (Bloomville p. o.), Ohio, has been bought by Newton Jump of Lemert.

Four grain bins have been built at Bryan, Ohio, for the Farmers Co-operative Grain Company.

John H. McFarland is the new manager of the Alma, Mich., grain elevator of the Alma Roller Mills.

Extensive repairs and improvements are being made to the elevator of the Rural Grain Company at Weston, Ohio.

The elevator of the Smith Bros. Velte & Co., at Woodland, Mich., has been equipped with a new grain cleaning system.

The Patterson Elevator near Kenton, Ohio, has been leased to Leo Jones and Ray Hemp who will operate at Jones & Hempy.

The A. R. Kerr Company of Horton (West Mansfield p. o.), Ohio, has let the contract for a 15,000-bushel elevator. The equipment will include

roller bearing corn shellers, overhead dump, Monitor Cleaner and scales.

C. B. Hammond is in charge as manager of the elevator of the Mt. Blanchard Farmers Co-operative Company, Mt. Blanchard, Ohio.

The elevator of the Sidney Grain Company of Sidney, Ohio, has been bought by C. H. Ginn who will operate as the Ginn Grain Company.

Leo R. Jones and Roy O. Hemy of Forest, Ohio, have leased the Patterson Elevator. The elevator was opened for business July 15 after having been closed for some time.

The offices of the American Hay & Grain Company have been moved from Marietta, Ohio, to Marion, Ohio. H. B. Alexander has withdrawn from the company and is going into other business.

A grain elevator has been opened at Peterson's Crossing, Ada, Ohio, by O. M. Abt & Son who leased it from the Farmers Co-operative Grain & Supply Company. A complete overhauling of the machinery has been made.

Joseph Schumacher has resigned as manager of the Bad Axe Grain Company's elevator at Minden City, Mich. Mr. Schumacher has been with this elevator for more than 20 years. Clyde Manchester is the new manager.

EASTERN

Another smutter has been added to the Baltimore & Ohio, and Western Maryland Elevators at Baltimore, Md.

The new Reading Elevator at Philadelphia, Pa., is practically completed with a capacity of 2,500,000 bushels. It is so designed that additional units can be built.

A permit has been granted the D. H. Grandin Milling Company of Jamestown, N. Y., for the erection of a 50,000-bushel elevator. It will be finished by November.

To conduct a grain, feed and seed business, the Wellsville Milling Company, Inc., has been incorporated at Wellsville, N. Y., capitalized at \$25,000. The stockholders are Carrol L. Chase, Roy Hazlett and Raymond Smith.

ILLINOIS

McNeill & Emmett of Erie, Ill., expect to build a grain elevator this fall.

M. D. Marshall is to be manager of the Farmers Elevator at Deer Creek, Ill.

A new scale is being installed by W. A. King at Tonica, Ill., to weigh up to 20,000 pounds.

A new 10-ton truck scale is being installed for the Farmers Elevator Company of Prentice, Ill.

The grain, coal and feed business of W. W. Reichard at Urbana, Ill., has been bought by the Corray Bros.

Everett Cronin is the manager for the Mt. Sterling Co-operative Elevator Company of Mt. Sterling, Ill.

The W. A. Elam Grain Company has added a new office at Vandalia, Ill., and made repairs on its elevator.

A new coal shed has been completed at Ophiem, Ill., for the Ophiem Grain Company. P. R. Gustus is manager.

H. T. Morris is manager of the grain sales department of the A. E. Staley Manufacturing Company at Decatur, Ill.

The Twiford Elevator at Arcola, Ill., has been bought by the Farmers Elevator Company. They will close this elevator.

U. S. Thompson has bought the elevator at Fithian, Ill., recently bought by his brother, the late John R. Thompson.

A cleaner has been installed and repairs are being made to the elevator of the Valley Grain Company of Douglas, Ill.

Antone Powers is to be manager of the Farmers Elevator Company of Jerseyville, Ill., succeeding the late John M. Shortal.

A contract farmers elevator is being built at Waynesville, Ill., by Calvin Gambrel. It will have capacity of 11,000 bushels.

The elevator at Mansfield, Ill., formerly owned by T. F. Grady, has been bought by Scholer & Gring. George Powell will have charge.

Repairs have been made to both the elevators of the Wyoming Grain Company of Wyoming, Ill., including roofing, painting, fireproofing, etc.

The Chicago Elevator Properties, Inc., has been incorporated at Chicago, Ill., to operate the grain elevators controlled by the Rosenbaum grain interests.

The Junction Grain Elevator and the Charter Oak Elevator, Petersburg, Ill., have been leased from the Junction Grain Company, by V. C. Elmore of Ashland. The elevators have been idle for some time.

The Clemmons Grain & Feed Company has been incorporated at Virden, Ill. to deal in grain, flour,

feed, seeds, etc. I. M. Clemmons, W. L. Beaty and George R. Brown are interested. The capital stock of the firm is \$45,000.

The Farmers Union of Kankakee, Ill., has taken over the Farmers Elevator at Kankakee and the elevators at Aroma Park and Van's Siding.

The Maryland (Ill.) Elevator of the Armour Grain Company has been bought by the Barker Lumber Company of Delavan, Wis. They will remodel it.

The elevator of the Oquawka Grain & Supply Company of Oquawka, Ill., has been leased and is being operated by the McKee Feed & Grain Company of Muscatine, Iowa.

The grain and lumber business of J. A. Klock & Co., at Castleton, Ill., has been bought by W. H. Hartz and son, Walter. It will be conducted as the Hartz Grain & Lumber Company.

A new 12-ton Fairbanks Scale has been installed by the Ipava Farmers Elevator Company of Ipava, Ill. The driveway has been improved and new ventilating type of motor installed.

The Arnold & Son Elevators at Buck's Road and Carle Springs, near Clinton, Ill., have been bought by Hasenwinkle & Schaler of Heyworth. The two elevators have a capacity of 45,000 bushels.

The grain and feed business of J. W. Hickam at Waltonville, Ill., has been bought by the Willis Feed & Seed Company of Mount Vernon. They will continue it as a wholesale and retail branch.

The Farmers Co-operative Grain Company's elevator and property near Mason City, Ill., has been acquired by the Farmers Grain & Coal Company of Mason City and the two businesses will be merged.

WESTERN

Repairs are being made to the Byers, Colo., elevator of the Denver Elevators.

Oscar Gaare succeeds Fred J. Williams as manager of the Fairfield (Mont.) Elevator.

The elevator of the Equity Co-operative Association of Harlem, Mont., has been repaired.

A \$50,000 elevator is being built for the Western Lumber & Grain Company at Great Falls, Mont.

Dissolution papers have been filed by the Springfield Mill & Grain Company of Springfield, Ore.

The plant of the Craig Farmers Milling & Elevator Company of Craig, Colo., is to be improved.

The Farmers Grain Exchange of Havre, Mont., has installed a distributor. Leon McNicol is manager.

The grain, feed and hay business of R. E. Upright at San Fernando, Calif., has been bought by James H. Gilmore.

An addition of 30,000 bushels' capacity is being built for the Farmers Elevator Company of Lewistown, Mont.

The Johnson-Miller Grain Company of Longmont, Colo., has been organized to deal in wheat, oats, barley, corn, etc.

Members of the Orofino-Rochdale Company have made plans for rebuilding its elevator at Orofino, Idaho, which burned.

The elevator of the Robinson Wyatt Grain Company of Genoa, Colo., has been bought by the Stinson Grain Company.

The Three Forks Mill & Elevator at Three Forks, Mont., has been sold by W. V. Veach to F. W. Webb, formerly of Belt.

The Craig Farmers Milling & Elevator Company of Craig, Colo., has made plans for general improvement to its property.

The Farmers Elevator at Homestead, Mont., has replaced its gas engine with a motor. A hammer mill has also been installed.

The warehouse of the Collins Grain Company at Pendleton, Ore., is to be under the management of Fred Cooper of Culdesac, Idaho.

The new elevator of the Farmers Co-operative Elevator Company at Denton, Mont., has been completed. Its capacity is 100,000 bushels.

The grain elevator and fuel business of the Hardin (Mont.) Grain & Fuel Company has been bought from J. H. Jesser by the Reed Bros.

F. F. Wollenberg is the new manager of the elevator at Edwall, Wash. He was formerly manager of the Marcellus (Wash.) Elevator Company.

The Peetz, Colo., elevator of the Nebraska-Colorado Grain Company has been bought by the W. C. Harris Company of Sterling. C. M. Depew of Sterling will be manager.

The MacDonald Warehouse & Grain Company of Spokane, Wash., has been incorporated by W. J. and W. H. MacDonald. Its capital is \$50,000.

The elevators of the Longmont Farmers Milling & Elevator Company at Haxtun, and Daily, Colo., have been sold to the W. C. Harris Company of Sterling, Colo.

The Frank Fischer Elevators at Judith Gap and Oxford, Mont., have been taken over by the W. C. Mitchell Company of Great Falls, Mont. For

three years they have been under the management of Mr. Fischer. Robert Franks will act as temporary manager in Judith Gap.

Grain warehouses at Oakesdale, Colfax and Seabury, Wash., owned by the Mark P. Miller Company have been leased by the Bassett Grain Company of Colfax.

The elevator of H. C. Sorenson at Peerless, Mont., has been sold to Peter Erickson who took charge June 1. Mr. Sorenson will have charge of the Glentana (Mont.) Grain Company.

Earl E. Botsford, J. E. Patton and B. H. Kiose have incorporated at Portage, Mont., as the Botsford Grain Company. They have been operating an elevator during the past season at that place.

Two 20,000-bushel elevator storage bins have been added to the plant of the Crowther Bros. Milling Company of Malad City, Idaho. Modern wheat handling apparatus and a weighing outfit are to be installed also.

The Almira Farmers Warehouse Company is planning to rebuild its property at Govan, Wash., which burned. The new warehouse will have a capacity to care for 200,000 bushels grain at that shipping point by harvest time.

The elevator and warehouse of the Mark P. Miller Milling Company at Genesee, Idaho, have been bought by the Mikkelsen Grain Company. The new owners are installing new machinery after having given the mill a complete overhauling.

The construction work has been started on six steel grain tanks to furnish storage for the Big Bend Milling Company at Davenport, Wash. The tanks will afford 40,000 bushels additional storage and will increase the capacity at the mill to 100,000 bushels.

The contract has been let by the Powers Elevator Company of Greycliff, Mont., for a new elevator of 40,000 bushels' capacity. Equipment will include a 10-ton Fairbanks Special Dump Scale, fitted with a Strong-Scott Dump and a 100-bushel hopper scale on work floor.

A warehouse is to be built for the Bonners Ferry Grain & Milling Company of Bonners Ferry, Idaho, for the storage of feeds with capacity of 15 carloads. The company plans to build an elevator and receiving station on the Kootenai Valley Railroad with capacity of four carloads daily.

The assets of the Lacrosse Elevator & Produce Company of Lacrosse, Wash., have been bought by the Kelley-Hughes Warehouse Company of Pullman. This gives the Kelley-Hughes Company 12 grain warehouses and two elevators, at Pullman, Busby, Kitzmiller, Sokulk, Warner, Thornton, Sunset and La Crosse.

The Hillsboro, Ore., plant of the C. B. Buchanan Grain & Feed Company, C. B. Buchanan owner, has been sold to W. D. Theda of Wenatchee, Wash. Mr. Buchanan has retained his interest in the McMinnville plant which will be operated as the C. B. Buchanan Grain & Feed Company instead of Buchanan & Sellars as heretofore. The name of the new firm at Hillsboro will be the Imperial Grain & Feed Company. Mr. Theda was for years with the Wenatchee Milling Company.

MISSOURI, KANSAS AND NEBRASKA

The Farmers Elevator at Boone, Neb., has been bought by E. Roach of St. Edward.

E. M. Highley is the new manager of the Seldomridge Elevator at Atlanta, Neb.

W. J. Lemke is now manager of the Mount Clare Grain Company at Mount Clare, Neb.

The elevator at Stella, Neb., owned by J. A. Mayer has been bought by R. A. Clark.

The Rankin Elevator at Edison, Neb., is in operation. Floyd Carlin will be in charge.

A new elevator is to be built at Wymore, Neb., for the Farmers Grain & Lumber Company.

The Thomas Grain Company of Franklin, Neb., has opened for business at Bloomington, Neb.

A new driveway and scale has been installed at the T. B. Hord Elevator at Columbus, Neb.

The Seldomridge Elevator at Atlanta, Neb., is being managed by E. M. Highley of Arcadia, Neb.

A \$3,000 warehouse is to be built at Eureka, Mo., for the Eureka Co-operative Elevator Association.

Extensive repairs have been made to the elevator of the Farmers Grain Company at Bruning, Neb.

A new automatic truck dump has been installed by the Farmers Grain & Stock Company of Polk, Neb.

The Powers Elevator at Grinton, Neb., has been bought by the Cheyenne Elevator Company of Cheyenne, Wyo.

A 30,000-bushel cribbed elevator has been completed at Kimball, Neb., for the Cheyenne Elevator Company.

The Farmers Elevator at St. Paul, Kan., has been bought and is being operated by the St. Paul Grain & Supply Company. R. D. Baker is

president; J. E. Winter, vice-president; A. P. Gregg, secretary and treasurer. Raymond Walker is local manager.

The I. B. Alter Elevator at Kiro (Silver Lake, P. O.), Kan., has been leased by Emmett Berry of St. Marys.

The grain elevator of the Ansley Livestock & Grain Company at Ansley, Neb., has been sold to Clarence Bristol.

The Minneola Co-operative Exchange of Minneola, Kan., has installed an air dump with a 10-foot steel grating.

The elevator of the Wright Leet Grain Company of Stromsburg, Neb., has been opened with H. T. Westering as agent.

The new 25,000-bushel elevator of the W. T. Barstow Grain Company of Lincoln at Cody, Neb., has been completed.

N. L. Jones' stock in the Pierce City Grain & Elevator Company of Pierce City, Mo., has been bought by C. H. Rohn.

The second elevator at Tobias, Neb., has been bought recently by the Crittenden Grain Company which already operates one.

The Mid-Kansas Milling Company of Clay Center, Kan., has completed work on its 120,000-bushel concrete storage addition.

Operations have been resumed in the Nye-Snyder-Jenks Elevator at Republican City, Neb., with A. Temple in charge.

L. E. Preston and Charles Atchinson will operate the grain elevator at Chilhowee, Mo., as the Chilhowee Grain Company.

J. A. Voboril has resigned as manager of the Farmers Elevator Company at Primrose, Neb., and is succeeded by Harold Watts.

The Putman Elevator at Beatrice, Neb., has been leased by the operators of the Farmers Elevator at Blue Springs, Neb.

The Johnson, Neb., elevator of the Duff Grain Company has been leased by Spencer Dominey who has opened it for business.

Business operations have been resumed in the Hord Elevator at Hordville, Neb., with S. A. Mathews of Beatrice in charge.

The Sutton Farmers Grain & Stock Company of Sutton, Neb., has built new coal sheds and put in a new floor in the elevator.

C. N. Richardson is building new concrete approaches to his dump at Hughesville, Mo., and will repair the elevator and warehouses.

The grain elevator at Wilcox, Neb., known as the Duff Elevator, has been leased by Roy M. Strong to O. J. Van Cleave of Holbrook.

W. E. Reeder has resigned his position as manager of the Farmers Elevator at Callaway, Neb., a position which he has held for 10 years.

A new dump has been installed and other improvements made to the elevator of the Farmers Union Co-operative Company at Friend, Neb.

The Farmers Union has sold the elevator at Shea (Diller p. o.), Neb., to Lew Barber for \$4,100. Mr. Barber will continue the management.

R. B. Owen is now in charge of the Owen Grain Company which has opened for business at Hutchinson, Kan. Associated with him is E. E. Shircliffe.

Lawrence Gridley has leased the old Red Elevator at Wakefield, Kan., owned by J. Lynch & Co. Warren Kiner will assist in managing the plant.

The Scottsbluff Elevator Company of Scottsbluff, Neb., has made plans to install a manlift, air dump and truck scales and to enlarge the warehouse.

The East Elevator at Overton, Neb., has been bought from the Hord Elevator Company by the Lexington Mill & Elevator Company. It is to be remodeled.

Operations have been commenced in the new addition to the Wabash Elevator at Kansas City, Mo. Its capacity is now 2,250,000 bushels, double its former size.

The Farmers Co-operative Grain & Mercantile Company of Halstead, Kan., has built a warehouse and will handle sacked feeds of all kinds. It has also enlarged the office.

W. H. Hinkle is now sales manager with the Blair Elevator Corporation of Atchison, Kan. He was formerly with the Arcady Farms Milling Company of Kansas City, Mo.

A new 4,000-bushel grain elevator has been built at Appleton City, Mo., for M. O. Grider replacing the one which burned. It contains all modern equipment and machinery.

The Mid-West Milling Company of Abilene, Kan., has completed a 10-bin addition to its elevator. The new tanks have a capacity of 120,000 bushels, bringing the total capacity to 180,000 bushels.

The Duff houses at Syracuse and Otoe, Neb., have been leased by the Nebraska-Iowa Grain Company

of Omaha, Neb. Welley J. Cook will be manager of the Syracuse house and Frank Krisl will be manager of the Otoe house.

The Morris Elevator at Heartwell, Neb., has been leased by C. F. Kohl of the Koehler-Twidale Company of Hastings, Neb., and Jay Green has been employed as manager.

A grain elevator of 10,000 bushels' capacity is being built at Long Pine, Neb., for the L. O. Shanefely Lumber Company. It is motorized throughout and has a truck dump.

A modern grain elevator is to be built for the Farmers Lumber & Grain Company of Arlington, Neb. The old office and elevator were torn down to make way for the new one.

The elevator of the Lushton Grain Company at Lushton, Neb., has been leased to the Grosshans Grain & Lumber Company of York. Mr. Oschner of Sutton will have charge.

The Nebraska-Iowa Grain Company of Minden, Neb., has overhauled its elevator, put in new elevating belts and cups, new scale and platform, new loading spout and numerous other repairs.

The elevator of the W. T. Barstow Grain Company at Arcadia, Neb., is again being operated by that company. R. R. Clark has rented the elevator for two years. W. J. Newton of Ord is manager for the Barstow firm.

The construction of a 90,000-bushel concrete elevator addition has been completed at Carthage, Mo., for the Morrow-Kidder Milling Company. Six main tanks with eight interstice bins giving total of 14 complete storage compartments are being built. The elevator storage is now 150,000 bushels. A new 15-ton truck scale and new wheat dump were also installed.

THE DAKOTAS

V. C. Gores is to be in charge of the elevator at Bisbee, N. D.

I. Midstokke is now manager of the Farmers Elevator at Arnegard, N. D.

A new elevator is to be built at Wentworth, S. D., for the Madison Grain Company.

A new elevator is being built at Orient, S. D., for the Atlas Elevator Company.

The Angle Elevator at Turton, S. D., has been opened. Ernie Cloutier is manager.

New coal sheds are being built at Estelline, S. D., for the Ford Elevator Company.

The Owens & Paulson Grain Elevator at Ramona, S. D., has been sold to Thomas Clark.

The Chamberlain (S. D.) Flour Mill and Elevator has been taken over by W. H. Dinehart.

Capitalized at \$25,000, the Farmers Elevator has been incorporated at Valley Springs, S. D.

The Empire Elevator at Bowman, N. D., has been bought by H. E. McKennett of Scranton.

The Nye & Jenks Company of Winner, S. D., has sold its elevator there to Charles L. Frescoln.

Extensive repairs are being made to the elevator of the National Elevator Company of Mates, N. D.

The S. E. Swanson Elevator at Roslyn, S. D., has been bought by the Farmers Elevator Company.

The elevator of R. S. Davidson at Killdeer, N. D., has been sold by him to C. O. Larson and Ernest Olsen.

The Farmers Elevator Company at Vayland, S. D., is to be conducted under the management of Fred Callsen.

The William Sheehy Elevator at Howard, S. D., has been remodeled. Alterations will make more bin room.

A new boot tank and pit have been installed in the elevator of the Groton Grain Company of Wing, N. D.

The Farmers Elevator Company of Landa, N. D., has completed its new elevator with capacity of 50,000 bushels.

Extensive repairs have been made recently to the elevator of the Farmers Elevator Company at Grenora, N. D.

Motors have been installed for the main elevator power for the Farmers Co-operative Company at Bruce, S. D.

Two new legs are being installed and the cupola raised for the Geo. P. Sexauer & Son's elevator at Brookings, S. D.

The elevator of the Garden City Farmers & Merchants Elevator Company at Garden City, S. D., has been repaired.

The Liberty Grain Elevator at Linton, N. D., is to be taken over by the North Dakota Wheat Growers Association.

The elevator at Leverich (Rugby p. o.), N. D., which burned is to be rebuilt. The contract for the house has been let.

Farmers of Lakota, N. D. who recently bought the elevator of the Co-operative Equity Exchange

will make a number of improvements. F. W. Keitzman is president of the company which will operate the house.

Forest Palmer of Crystal Springs is to succeed C. W. Knapp as manager of the Powers Elevator at Edgeley, N. D.

Will Cihak succeeds Frank Humphrey as manager of the Farmers Co-operative Elevator Company, of Geddes, S. D.

The contract has been let by the Imperial Elevator Company for the erection of a 25,000-bushel elevator at Barton, N. D.

A new motor and head drive are being installed in the elevator of the Appam Farmers Elevator Company at Appam, N. D.

A new elevator of 10,000 bushels' capacity has been built at Vale, S. D., for the Tri-State Milling Company of Belle Fourche.

The Montpelier Elevator Company has taken over the Farmers Elevator at Montpelier, N. D. H. E. Tingdahl is manager.

The Madison Grain Company has started the erection of a new grain elevator at Colman, S. D. It is of 35,000 bushels' capacity.

The Logan Grain Company of Burnstad, N. D., is to make repairs to its elevator including the installation of a Strong-Scott Dump.

The Souris Co-operative Elevator Company of Souris, N. D., is remodeling its elevator and increasing the capacity of the house.

John O. Broute has resigned as grain buyer at the Farmers Elevator at Reynolds, N. D., and is succeeded as such by J. P. Bronken.

The elevator of the Chelsea Grain Company of Chelsea, S. D., is being rebuilt taking the place of the one which burned in January.

New motors are being installed and a general overhauling given the International Elevator at Hunter, N. D. M. Rutten is manager.

N. J. Rodenberg is manager of the Equity Elevator & Trading Company of Kelso, N. D. The elevator has a capacity of 105,000 bushels.

The Farmers Elevator Company of Tappen, N. D., has decided not to sell the elevator to the pool association. Harry Fisher is president.

Jacob Isely will retire after 34 years active service with the Atlantic Elevator Company at Courtenay, N. D. He is succeeded by C. A. Huenga.

A new grain company has been formed at Letcher, S. D., as the Letcher Grain Company by E. P. Pearce of Letcher and W. A. Scott of Stirling.

The plant of the Barney Grain Company of Barney, N. D., has been bought by Peters & Neeb who will operate with Clyde W. Adams as manager.

The Florence Farmers Co-operative Elevator Company has bought the W. I. Thompson Elevator at Florence, S. D., from the Hoover Grain Company.

The Watauga Equity Exchange of Watauga, S. D., has completed a 36,000-bushel elevator. It is equipped with five Fairbanks-Morse Electric Motors.

A modern scale, double distributor and general overhauling is to be done to the elevator of the Flasher Equity Exchange which is located a Flasher, N. D.

The Farmers Co-operative Elevator Company of Firesteel, S. D., has let the contract for a 30,000-bushel elevator. It will be equipped with modern machinery.

The Farmers Independent Elevator Company of Carrington, N. D., has let the contract for installing a Strong-Scott Dump and to do other repair work.

A new concrete foundation has been installed under Elevator No. 1 of the Farmers Elevator Company of Revillo, S. D., as well as general repairs being made.

The Minnesota Elevator Company is making repairs on its elevators at Fonda, Sanish, Tasco, Selz, Sawyer, Max, Norma, Ryder, Adams, and Dahlen, N. D.

The elevator of the McBath Grain & Elevator Company, Adelaide (P. O. Conde), S. D., has been sold to the Farmers Union Elevator Company of Aberdeen, S. D.

C. J. Tuttle has resigned his position as manager of the elevator of the Rock Lake Farmers Elevator Company of Rock Lake, N. D., and is succeeded by A. J. Cheer.

The Wheat Growers Association has bought the elevator of the Farmers Elevator & Stock Company at Hazelton, N. D. The company still retains an interest in the oil business.

The Plummer Elevator at Minnewaukan, N. D., has been bought by the Wheat Growers Warehouse Company. The elevator at Hannaford, has also been bought by this company.

The Grenora Farmers Elevator Company of Grenora, N. D., has remodeled its elevator including

enlarged office and new double distributor, new legs, plus repairing old legs, automatic scale, house for screenings, new large steel boot tank, new steel spouts, electric motors, etc.

O. A. Streater and C. C. Vickerman have formed a partnership at Canton, S. D., and will operate a track buying and merchandising business in grain. Mr. Streater was for 25 years with the Huntting Elevator Company of Minneapolis.

The plant of the Equity Elevator & Trading Company, Turtle Lake, N. D., is being motorized with the installation of two 7½-horsepower Fairbanks Motors mounted on the head drives. Additional storage bins are also being built.

MINNESOTA AND WISCONSIN

A new elevator is being built at Rice Lake, Wis., for A. A. Bergeron.

Business has been discontinued by the Farmers Elevator Company of Lyndale, Minn.

The plant of St. John & Son at Worthington, Minn., is being improved extensively.

Julius Wenks is now manager of the New Ulm Farmers Elevator Company located at New Ulm, Minn.

A 20,000-bushel addition is being built for the Marshall Independent Elevator located at Marshall, Minn.

Oscar Ebbeson succeeds Thomas Hennessey as manager of the Farmers Elevator at Lamberton, Minn.

Melvin Ogard succeeds Helmar Hallom as manager of the Ada Farmer's Co-operative Elevator at Ada, Minn.

The property of the Farmers Elevator Company of Wendell, Minn., has been sold to H. M. Velde of Ortonville.

A 1,000,000-bushel elevator is to be built at Minneapolis, Minn., to take care of grain shipment by the barge route.

A new dump scale and a Strong-Scott Dump has been installed in the elevator of the Sweeney Bros. at Arlington, Minn.

The co-operative elevator at Pennock, Minn., has been leased by J. V. Pappenfus of St. Cloud and will be operated by him.

Wesley G. Morrow has succeeded Jack Schemmel as manager of the Farmers Elevator's grain department at Willmar, Minn.

The elevator at Bongards, Minn., has been bought by N. J. Hennin, formerly manager of the Farmers Equity Union of Rhame, N. D.

The Sheffield Elevator Company of Minneapolis, Minn., has installed two new five-unit cylinder cleaners, replacing the sieve machines.

The name of the Barnesville Farmers Co-operative Exchange of Barnesville, Minn., has been changed to the Farmers Elevator Company.

The elevator of the Farmers Warehouse Association at Echo, Minn., has been remodeled. A new feed mill has been installed as well as a 10-ton dump scale.

The articles of incorporation of the Farmers Grain & Mercantile Company at Rothsay, Minn., have been renewed. O. A. Olstad is president and Ole T. Gronseth secretary.

A building permit has been granted the Archer-Daniels-Midland Company, flaxseed crushers of Minneapolis, Minn., to cover the construction of a five-story steel grain drier.

The Osceola Mill & Elevator Company of Osceola, Wis., has sold its property at public auction to the Minnesota Loan & Trust Company, plaintiffs in the foreclosure action.

A new 30,000-bushel elevator is to be built at Felton, Minn., for the National Elevator Company, replacing the one which was torn down. New coal sheds are also to be built.

The old elevator of the Krueger Bros. Elevator Company at Brillion, Wis., is being dismantled. The elevator was at one time operated by the Wisconsin Malt & Grain Company.

Elevator E at Milwaukee, Wis., operated by the Cargill Grain Company is now being conducted as regular for the storage and delivery of grain and flaxseed to the capacity of 1,000,000 bushels.

The contract has been let by the Osborne-McMillan Elevator Company of Minneapolis, Minn., for a 700,000-bushel addition to its elevator which will bring the total capacity to 1,450,000 bushels of grain.

To handle grain and manufacture flour, the Marcus Johnson Grain Company was incorporated at Crookston, Minn., capitalized at \$400,000. Marcus Johnson, Manville A. Johnson, Clarence E. Funk, S. M. Sivertson and John J. Padden are interested.

The new 30,000-bushel elevator of the Dawson Produce Company at Dawson, Minn., has been completed. The capacity is divided into 16 bins with

modern equipment including a Fairbanks Special 10-ton Dump Scale, fitted with truck dump, 2,000-bushel per hour automatic scale located in cupola, manlift, two legs and Fairbanks Motors.

The Continental Grain Company of Minneapolis and New York wants to buy Elevator D at Minneapolis, Minn., now owned by the Pioneer Grain Corporation. This is a 500,000-bushel elevator.

C. W. Gillam has sold his grain elevator at Winona, Minn., to the Co-operative Elevator Company. Mr. Gillam operated the elevator for 40 years before his appointment as state securities commissioner.

George Jones succeeded Leon Maurice as manager of the Farmers Co-operative Elevator Company at Atwater, Minn. Mr. Maurice will be manager of the Farmers Co-operative Elevator Company at Ortonville.

The Rialto and Kinnickinnic Elevators at Milwaukee, Wis., have been declared regular for the storage of grain and flaxseed to the capacity of 2,000,000 bushels. They have been designated as storage houses for 1,000,000 bushels each.

The grain elevator at Forest Junction, Wis., which was built over 20 years ago by the Wisconsin Grain & Malt Company of Appleton, Wis., is being torn down. A warehouse will probably be erected on the site of the razed building.

M. B. O'Halloran has been made general superintendent for the Huntting Elevator Company and will have charge of 52 elevators in Minnesota, South Dakota and Iowa. His headquarters will be at Austin, Minn. He was formerly traveling auditor for the company.

CANADA

Elevator No. 2 of the Alberta Wheat Pool, Vancouver, B. C., is to be conducted by Joseph

Bennett. He at one time had managed the Terminal Elevator at Calgary for the grain board and later went to Prince Rupert for the Wheat Pool.

The new bins to the elevator of the Great Lakes Elevator Company at Owen Sound, Ont., will be completed by the end of August.

A 600,000-bushel addition is being built for the Canadian Malting Company of Montreal, Que. The John S. Metcalf Company has the contract.

A syndicate headed by Kenneth Blatchford of Edmonton is interested in the erection of a \$2,700,000 grain elevator and flour mill at Victoria, B. C.

John McIvor is in charge of the Alberta Wheat Pool's elevator at Prince Rupert, B. C. He succeeds Joseph Bennett who is now in charge of the Pool's elevator at Vancouver, B. C.

Tenders have been called for by the Alberta Wheat Pool for the 2,500,000-bushel elevator at Vancouver, B. C. It will cost \$2,000,000 and will be erected under the supervision of C. D. Howe.

Extensive repairs are being made to the elevator of the Canadian National Railroad Company at Depot Harbor, Ont. It includes the electrification of the elevator and abandonment of the steam power plant. The Donahue-Stratton Company operates the elevator.

According to agreements made several months ago, the early part of August, control of two Vancouver Harbor Board Elevators and Lapointe Pier passed into the hands of private concerns. No. 1 Elevator goes to the Alberta Pacific Grain Company, on a five year lease. It has a capacity of 2,050,000 bushels and will be operated as a public elevator. No. 2 Elevator is taken over by the Canadian Co-operative Wheat Producers, Ltd. It has a capacity of 1,625,000 bushels and will be operated privately. The lease makes provision for one year only.

HAY, STRAW AND FEED

Fisher & Wilson of Beebe, Ark., are succeeded by the Phillips Feed Company.

A retail feed store has been opened at Renton, Wash., for the Lande Feed Company.

A feed mill is to be installed in the elevator at Traer, Iowa, for the Farmers Elevator Company.

The National Poultry Products Company has opened a new feed establishment at Springfield, Mo.

The feed and coal business of E. H. Forsythe at Oneonta, N. Y., has been bought by B. L. Colton.

A feed store has been opened at La Crosse, Wis., for the Staley Bros., formerly of Hillsboro, Wis.

A hammer feed mill has been installed by the Farmers Feed & Supply Company of Griswold, Iowa.

A new building for a feed business has been built at Amboy, Ill., for the Berga Grain & Feed Company.

The Prep Feed Store at Boulder, Colo., has been bought from J. S. Stone by Guy W. Wray and J. H. Rand.

The Jack Schilling Feed Store at Aloha, Ore., has been bought by A. R. Mills and W. H. Benjamin.

The interest of Ernest Bateman in King & Bateman, feed dealers, Ozark, Ark., has been bought by H. Phillips.

The National Hay & Milling Company's property at Kansas City, Mo., has been bought by the Purina Mills.

The feed store at Grandview, Wash., has been bought by C. A. Miller. It is known as the Frye Feed Store.

The coal, feed and stock business of the Farmers Union at La Porte City, Iowa, has been bought by Hess & Ham of Jesup.

The grocery, feed and coal business of S. W. Phillips at Tecumseh, Neb., has been bought by Harold and Walter Sapp.

J. C. Kramer has remodeled his feed establishment at Montford, Wis. He has improved the feed grinding department.

Glenn's Feed Store and A. B. Davidson of Tarentum, Pa., have consolidated as the Tarentum Feed & Supply Company.

The Godman Produce & Feed Company has opened for business at Maywood, Mo. Cecil Godman is owner and manager.

A new feed store has been opened at 19 N. Alabama St., Indianapolis, Ind., by C. O. Enochs. He

has operated a feed store at Irvington, a suburb of Indianapolis for 12 years and one at Indianapolis for two.

John H. McKee has bought the feed store at Compton, Calif., which he has been managing for some time from E. P. Tallon.

Work on the new plant of the Southard Feed & Milling Company of Kansas City, Mo., is expected to be completed by September 1.

New quarters are now occupied by the A. D. Pease Feed Company of Burlington, Vt. Lighting and heating systems have been installed.

The feed store of R. E. Upright at San Fernando, Calif., has been sold to James H. Gilmore who will continue to handle hay, grain and feed.

A building for feed and flour storage is being built at West Union, Iowa, for the Farmers Elevator & Shipping Association of West Union.

A chain of feed stores is being opened up by R. H. Burnett to be known as the Burnett Feed Stores. One of the new stores is at Vancouver, Wash.

To manufacture cottonseed meal and cakes, the Pacific Cotton Seed Products Company was incorporated at San Diego, Calif., capitalized at \$75,000.

The B. H. McCarthy Company of Hardin, Mont., has secured larger quarters and has moved its feed stock and feed grinding equipment into it.

A. K. Reynolds, G. Berggren and F. H. Keenon have incorporated as the North Plains Feed Company of North Plains, Ore. Its capital stock is \$10,000.

The Alfalfa-Corn Milling Company of St. Louis, Mo., is building a large mixed feed distributing warehouse at Macon, Miss. Dairy feeds will be specialized in.

To operate a wholesale feed business, the Morphy Feed Company has been organized at Rochester, N. Y. A. J. Metzger, H. F. Baetzel and William J. Bell are interested.

A retail feed and produce store is to be opened at Trenton, Mo., by Roy Hatfield who has leased a building there formerly occupied by the Harry Witten Feed Store.

The California Molasses Feed Corporation, Los Angeles, Calif., has made plans for the erection of a new addition to its feed plant. Alfalfa and hay will be among the products used.

To conduct a feed and seed business, the Eastern Shore Farmers Service was incorporated at Nassawadox, Va., capitalized at \$15,000. J. L. Whitehead and C. L. Wilkins are interested.

The interest of Eugene and Dale Arnold in the Arnold Company, wholesale hay dealers at Newton, Ill., has been bought by Laurence F. Arnold.

The firm owns hay barns at a number of Illinois towns and does an extensive business in buying and selling hay.

The Grain Products Company of Wichita, Kan., will now handle the products of the Quisenberry Feed Manufacturing Company and the Tarkto Molasses Feed Company of Kansas City, Mo.

A new building in La Feria, Texas, has been leased by the J. R. Barry Company, wholesale feed and grocery dealers of Mercedes, Texas, in which the company will conduct a branch business.

The Pratt Food Company at Buffalo, N. Y., has bought five acres of land upon which it will erect

a molasses feed mill and storage tanks. The Pratt company has headquarters at Philadelphia. William E. Ashe is manager of the Buffalo plant.

The plant which the Davidson Mill & Elevator Company, manufacturers of molasses feeds and jobbers of grain and millfeeds, has been occupying at Kansas City, Mo., for three and a half years has been bought by them.

The Citizens Feed Company has been incorporated at Frankfort, Ind., and will both manufacture and handle feeds. Its capital stock is \$20,000. Incorporators are: Carl W. Sims, Leslie T. Conarroe, Alexander S. Corey, William Gambel.

OBITUARY

BAKER.—D. W. Baker died on June 30 at Benedict, Neb. He was president of the Farmers Grain Association of Benedict, Neb.

BROWN.—J. A. Brown died on August 4 aged 63 years. He was for a number of years in the grain business at Port Hope, Ont.

BUERGER.—John Buerger died on July 23 aged 82 years. He was familiarly known as the "barley king" to members of the Milwaukee Chamber of Commerce. He was active in the grain business for over 40 years and at the time of his death was head of the Buerger Commission Company.

BUERGER.—John F. B. Buerger died on July 31 aged 52 years just eight days after the death of his father, the former "barley king" of Milwaukee, Wis. He had been in the grain business all his life being associated with the Buerger-Crittenden Milling Company, Krause Milling Company, J. M. Riebs Grain Company and the Buerger Commission Company. He had been a member of the Milwaukee Chamber of Commerce for more than 30 years. His widow and one daughter survive him.

CURTISS.—J. M. Curtiss died recently at Ritchey, Mo. He had been in the grain business there for years.

CONWAY.—Frank D. Conway died on July 21 aged 66 years. He was for years in the lumber and grain business at Fort Dodge, Iowa.

DAVIDSON.—O. E. Davidson for years in the feed and screenings business at Minneapolis, Minn., died on July 10. He was at one time connected with the W. P. Devereaux Company and was later engaged in elevator construction work. His widow and four daughters survive him.

DORAN.—James Doran died aged 71 years. He had for years been prominent in the grain trading business at St. Paul, Minn., but retired about 20 years ago.

FISH.—Henry Fish died on July 25 at Carpinteria, Calif. He organized the Henry Fish Seed Company in 1910 and had been president of it since then. His widow and three sons and three daughters survive him.

GRAY.—John A. Gray died aged 56 years. He had been in the grain and lumber business at Schaller, Iowa, for a long time. His widow and daughter survive him.

GRIFFITHS.—Kenneth E. Griffiths died on August 5 at his home in Chicago. He had for more than 25 years been a member of the Chicago Board of Trade.

HENNEBERRY.—Thomas J. Henneberry died at Cerro Gordo, Ill. He was formerly in the grain elevator business at Elkhart and later at Cerro Gordo. His widow and his two daughters survive him.

LOUGHRY.—Clloyd Loughry died on July 13 at Monticello, Ind. He had served as director of the Indiana Grain Dealers Association and was vice-president of the Yeoman Grain Company and director in the Burnettsville Elevator Company.

MOULTON.—George M. Moulton died on July 26 at Chicago, Ill. He constructed the first elevator at the Head of the Lakes.

M'KENZIE.—Alexnader McKenzie died at Detroit, Mich., on July 18 of heart disease aged 72 years. He was a charter member of the Kansas City Board of Trade and recently became manager of the milling wheat department of the Moore-Seaver Grain Company of Kansas City, Mo. His widow and daughter survive him.

NUNGESSER.—Henry Nungesser died at Carcassonne, France, on July 13. He began his career in the grass seed business at Griesheim, near Darmstadt, Germany. He came to this country in 1874 and started in business in New York. He continued alone until 1894 when he formed a co-partnership with Marshall H. Duryea, who had been associated with him for a number of years.

The business was continued as Henry Nungesser & Co., and in 1899 the firm name was changed to The Nungesser-Dickinson Seed Company with Mr. Nungesser and Mr. Duryea as president and vice-president, respectively. In 1916 Mr. Nungesser retired, and since then has spent most of the time in France.

OWENS.—C. M. Owens died on July 15 at his sister's home in Minneapolis, Minn. He had been in the grain business in Minneapolis for the last 20 years, and at the time of his death was with the Atwood-Larsen Company.

FIRES—CASUALTIES

Alexis, Ill.—Fire destroyed on July 21 the plant of R. P. Miner & Co.

Harness, Ill.—The grain elevator of John Wiemers burned on July 9.

Bennett, Neb.—The Farmers Co-operative Union Elevator was destroyed by fire.

Amarillo, Texas.—Fire damaged the warehouse of the Kenyon Grain & Coal Company.

Forest, Ohio.—Fire damaged the Farmers Co-operative Elevator but did not destroy it.

Irving, Iowa.—Fire damaged the elevator property of the Blaha Bros., with considerable loss.

Willard, Ohio.—The Willard Farmers Exchange Company sustained a small loss by fire on July 6.

Belleville, Kan.—Lightning was the cause of fire in the elevator of E. A. Fulcomer & Son on July 20.

Atlanta, Ga.—W. L. Fain Grain Company's plant at this place burned on July 30 with a loss of \$75,000.

Hollister, Calif.—One of the warehouses of the Lathrop Hay & Grain Company was destroyed by fire.

Dexter, Iowa.—On August 6 the B. C. Hemphill Grain Elevator burned with a \$25,000 loss. It was insured.

Bellefont, Kan.—Lightning was the cause of a fire which damaged the elevator of C. D. Jennings on August 1.

Emerado, N. D.—Fire damaged on June 29 the property of the Emerado Farmers Co-operative Elevator Company.

Longview, Ill.—Fire of unknown origin destroyed the Brocton Elevator and 7,000 bushels grain. The loss was \$12,000.

Dixon, Ill.—The property of the Public Supply, Grain & Elevator Company was damaged by fire with a loss of \$7,000.

Laurens, Iowa.—The elevators of the Farmers Trading Company were damaged by fire, caused by lightning, to the extent of \$15,000.

Oakesdale, Wash.—The warehouse of the Seattle Grain Company was destroyed during a fire which also burned other structures in that town.

Beardsley, Minn.—On July 6 the feed barn located south of the elevator of Geier Bros. burned, damaging the roof and sides of the elevator.

Campbell, Minn.—The elevators of the Hoover Grain Company and the Independent Elevator Company were slightly damaged by fire on June 25.

Milford, Neb.—Fire destroyed the storage elevator of the Milford Mills with 30,000 bushels corn. Jacob Kuebler, an employe, was killed during the fire.

Minneapolis, Minn.—The Crown Elevator was destroyed in a dust explosion on July 27 with a loss of \$350,000. The elevator had 100,000 bushels' ca-

SHORTAL.—John M. Shortal died on July 16 aged 60 years. He was manager of the Farmers Elevator at Jerseyville, Ill. His widow, three sons and five daughters survive him.

STANFIELD.—A. L. Stanfield who owned elevators at Edgar, Ill., and Horace, Ill., died on August 5 at Paris, Ill. He was for 13 years a representative from the twenty-second district in the Illinois legislature.

STARRY.—Emanuel Starry died on July 13 at his home in Mechanicsburg, Pa. He was for more than 25 years connected with the Uhrich Grain Warehouse at Mechanicsburg now owned by M. C. Dietz Sons.

STEWART.—W. H. Stewart died on August 4 at his home in Homeworth, Ohio, from heart attack. He was 56 years old. Until just recently he was employed as manager of the Homeworth Supply Company.

STORZ.—Clarence M. Storz, manager of the elevator of the C. A. Crosby Company at Monroe Center, Ill., died recently.

TRUXAL.—Cyrus W. Truxal died on July 19. He was for over 40 years engaged in the grain and feed business at Meyersdale, Pa. He was 75 years old.

WARD.—Don W. Ward, owner of the Waukomis Mill & Elevator Company of Waukomis, Okla., died recently.

WOODRUFF.—Frank H. Woodruff of Milford, Milford, Conn., died suddenly at Crawford, Neb., on July 24 while on his way to Douglas, Wyo. He was a pioneer seedsman of this country and head of F. H. Woodruff & Sons. His widow and two sons and one daughter survive him.

capacity and was owned by the Crown Elevator Company of which Fred P. Wheeler is vice-president.

Williamsburg, Kan.—The elevator and warehouse of the Mid-Continent Grain Company were slightly damaged by fire caused by lightning on July 28.

Clearmont, Mo.—The elevator of the Clearmont Elevator Company owned and managed by Guy Clary burned on July 23. The loss was \$14,000.

Gray, Iowa.—The elevator here of the Trans-Mississippi Elevator Company was destroyed with a loss of 25,000 bushels corn. The loss was \$35,000.

Woburn, Mass.—The warehouse of Jaquith & Co., grain and feed dealers was damaged by fire on July 5. Considerable hay, flour and grain was burned.

Scott City, Kan.—The J. E. Kirk Grain Elevator burned on July 15 with a total loss, causing damages of \$4,500. This was partly covered by insurance.

Leverich (Rugby p. o.), N. D.—The Farmers Elevator near here was destroyed by fire of unknown origin. The insurance amounted to \$9,000 on buildings and equipment.

Belden, Neb.—The Mullaney Elevator was destroyed by fire. This was taken over by the Mullaney interests at the time they bought the McCaull-Webster line of elevators.

Durham, Ont.—Fire on July 19 destroyed the McGowan Grain Elevator with \$25,000 loss partly covered by insurance. A carload of wheat valued at \$2,000 was also destroyed.

Brule, Neb.—The Farmers Elevator, containing 6,000 bushels wheat, was destroyed by fire of unknown origin. The fire started in the office or engine room of the plant. The elevator will be rebuilt.

Catoosa, Okla.—The property of the Farmers Mill & Elevator Company was damaged by fire. Dr. J. C. Smith is president of the company. Damages amounted to \$20,000, partially covered by insurance.

Memphis, Tenn.—Fire damaged to the extent of \$50,000 the grain elevator of Embury E. Anderson. The flakes did but little damage to the elevator which did not contain much grain. It was confined to the boiler room.

Vator (Anniston p. o.), Mo.—Fire destroyed the elevator of the Whitehead-Davis Grain Company. The elevator had a capacity of 75,000 bushels and contained three or four carloads of corn. The insurance was \$10,000; loss \$30,000.

ALVIN SUTHEIMER has been appointed receiver for the Evansville Grain Company of Evansville, Ind.

THE Farmers Grain Company of Bulpitt, Ill., is bankrupt with liabilities of \$21,920 and assets of \$7,250.

FIELD SEEDS

SEED EXPANSION PROGRAM

The Expansion Committee of the Farm Seed Association of North America has recently outlined a program carrying an appropriation of \$25,000 a year for the establishment of permanent headquarters and the employment of a full time manager to better conditions in the field seed industry. Wm. G. Scarlett, head of W. G. Scarlett & Co., seedsmen of Baltimore, Md., is chairman of the committee. Clarence Jones of the W. A. Simpson Company of Baltimore is secretary-treasurer of the association.

ELECTRIC REFRIGERATION

Low constant temperatures for the germination of certain seeds is required and in some of the regular chamber germinators at the seed testing laboratory at Geneva, N. Y., Frigidaire cooling coils have successfully replaced running water and ice boxes, says M. T. Munn of that station. The coil used was one of the new types with large fins which did not take moisture from the atmosphere and hold it as frost or ice as is done at the lower temperatures desired in an ice box or refrigerator.

The laboratory is now planning to equip at least one chamber with a coil to maintain a temperature of as low as 10 Centigrade for certain seeds. It will be automatic in control and the directors of the laboratory believe that it will prove satisfactory.

SEED ANALYSTS ELECT

At the recently held annual meeting of the Association of Official Seed Analysts the following officers were elected: President, Walter C. Pfaender, the Albert Dickinson Company, Chicago; vice-president, K. E. Smith of Baltimore; secretary-treasurer, Macy L. Spracher, Minneapolis, Minn.; Membership Committee, Anton Zahorik, Ethel E. Pattison, Helen B. Peebles.

At the same time the Official Seed Analysts Association held its annual meeting with the following officers chosen to direct the association's activities during the coming year: President, E. H. Toole; vice-president, Miss Bess Cowley, Virginia; secretary-treasurer, A. L. Stone, Wisconsin; chairman Public Service Committee, C. A. Stahl, Michigan; chairman Co-operative Service Committee, Anna M. Lute, Colorado; chairman Research Committee, F. T. Whalen, Ottawa; chairman Legislative Committee, G. T. French, Virginia.

HOW TO STAIN IMPORTED ALFALFA SEED

Under the new regulations the staining of an orange-red color of all Alfalfa seed imported into the United States from South America is required. Instructions as to how this may be most easily done have been recently published.

Satisfactory staining has been done by the use of a cement mixer. The seed is put into the mixer and the orange-red shellac stain added at the rate of 1½ gallons to 220 pounds of seed. The mixer is run until the alcohol is evaporated and the seed is dry. The stained seed is then bulked with the unstained seed at the rate of 10 pounds of stained seed to 100 pounds of unstained seed, the bulking being done under customs supervision.

Tests conducted by the Bureau of Plant Industry, United States Department of Agriculture, have shown that satisfactory orange-red coloring of Alfalfa seed may be secured with the following solution:

To one gallon of 95 per cent alcohol (denatured or wood alcohol) add 1 pint commercial orange shellac, 2½ ounces, Uranine powder (Fluorescein-Sodium Salt), 1½ ounce Rhodamine B base, stearate powder.

CRIMSON CLOVER SEED MOVING QUICKLY

Crimson Clover seed movement in Tennessee was rapid during the four weeks ended July 26. Approximately 55 per cent of the crop had been sold, compared with 10 per cent on about the same date last year and three years ago and 20 per cent two years ago, according to information obtained by the Bureau of Agricultural Economics. In North Carolina, movement was equally fast. Growers have sold freely at prevailing prices which were much higher than a year ago.

Prices to growers in Tennessee on July 26 averaged \$14.75 per 100 pounds, basis clean seed, or about \$1.50 higher than a month ago and \$5.25 higher than a year ago. For country run seed,

growers received an average price of \$13.85 per 100 pounds.

Wholesale prices in eastern markets remain the highest since 1919 and range \$17.50—\$18.50 per 100 pounds, compared with \$16.50—\$17 a month ago and \$8—\$8.50 a year ago.

Shippers report a preference by growers for domestic over foreign seed. In producing sections foreign seed was offered in some localities at about the same price or slightly less than growers were receiving for domestic seed. In other localities it sold higher and on the whole averaged about \$17.50 per 100 pounds.

No Crimson Clover seed was permitted entry during July, but during the week ended July 30, about 22,600 pounds, subject to the Federal Seed Act, was received at one Atlantic port from France.

MOVIES TAKEN ON PLANT BREEDING ESTATE OF SEED COMPANY

So impressive have been the yields of high quality seed from corn and other grain plants cultivated on the vast plant breeding acreage of the Funk Bros. Seed Company, Bloomington, Ill., that the Dupont interests who have been furnishing some of the fertilizer for the project, this month sent moving picture technicians to the scene in order to record the experiments being conducted in the fields.

Funk seed corn, some of it selling as high as \$5 and \$10 per bushel, is known in many states, for H. H. Miller, business manager of the company, has developed a national business in seeds through direct-mail effort. The great bulk of the business is carried on through the mails.

Isaac Funk, in 1824, began growing corn on the very land used by the Funk Bros. Seed Company today for corn breeding. His purpose in coming

his justly famous speech on the preservation of the Union.

La Fayette Funk, fourth of the eight sons of Isaac Funk, also had an illustrious record up to the time of his deeply regretted retirement. Eugene D. Funk, president of the company today, is the oldest son of La Fayette Funk. After a course in Yale University, he went to Europe and made a study of continental agriculture as a preface to his scientific work in the breeding of farm seed, particularly in farm corn, but including wheat and oats. Mr. Funk has maintained an open door policy so far as his laboratories and seed breeding work has been concerned, and representatives of many governments as well as our own state institutions, have spent months in study on the 25,000-acre Funk farm area. Although the Funk farms have been in the possession of this family for 103 years, the history of the seed company dates from 1900.

In 1916, President Woodrow Wilson, selected Eugene D. Funk as one of the 12 men to fix the price of wheat.

This seed company is probably unique in the contribution its organizers have made to seed science. The personality of Eugene D. Funk was responsible for drawing many seed experts from all parts of the globe to Bloomington, after the company's incorporation in 1902. Professor Duval, of the United States Grain Inspection Bureau, worked out his first moisture testing machine while located on the Funk estate. Dr. De Vries, of Holland, internationally famous plant breeder, has spent much time there. Conclusive evidence of the value of silage over shock corn was first developed there. Federal and state agricultural authorities by the dozen have made the Funk farms their temporary headquarters from time to time, in order to benefit from the extensive seed breeding and treating facilities there provided.

INDIANA SEED NEWS

By W. B. CARLETON

Seed wholesalers and retailers in Indiana cities and towns report that their trade has been extremely dull during the past month. The threshing of White, Red and Sweet Clover and Red Top in Indiana has been in progress for the past several weeks. The grade of the seed is very good but the



PLANT OF THE FUNK BROS. SEED COMPANY, BLOOMINGTON, ILL.

to Illinois was to get a place where he could raise, buy feed and market cattle and hogs. He made a market for his livestock in Chicago where there was none before, thereby laying the foundation for the present great packing industry. He drove at one time as many as 1,500 cattle and 1,000 hogs to Chicago, a distance of about 140 miles. It is said Mr. Funk always went with his cattle, and took his share, or, more than his share, of the hardest, the most disagreeable and most dangerous parts of the work.

Isaac Funk accomplished much in the 40 years from the time he came to Illinois, to the time of his death. Picture him in 1824, a young man standing in front of his rude cabin of poles and clapboards. No human habitation within miles of his. On one side of him the primeval forests, on the other the boundless trackless prairie; without money, in debt; without friends who had money; without schooling, the owner of two or three horses, a cow or two, an axe, and a meagre equipment of rude agricultural implements. Then picture the princely estate he had acquired and the honors he had brought to his name.

Isaac Funk was elected to the House of Representatives of Illinois in 1840. In 1862 he was elected to the state senate to fill the unexpired term of General Oglesby. He was re-elected for the full term. It was during this term in the very darkest days of the rebellion when the fate of Illinois was trembling in the balance, that he made

yield is much smaller than that of last year. The acreage of Red Clover was some larger than that of last year. Alfalfa cutting is in progress and many of the Indiana farmers report they have cut the second crop this year and they are well pleased with the crop. The second cutting was as good or even better than the first cutting and farmers in some parts of the state are expecting to get a third cutting unless there is an early frost. Indiana farmers during the past several years have turned more and more to Alfalfa growing, as they find it is one of the best crops that they can raise. The threshing of wheat in Indiana is about over. The quality of the Indiana wheat this year was exceptionally good, although the yield was not up to that of last year. The yield of oats in the state was poor. The acreage in southern Indiana was light. In the northern and central parts of Indiana some fields of oats yielded as high as 113 bushels to the acre. Rye turned out very well, although the acreage in Indiana was small. The outlook for corn in Indiana is not encouraging. Much of the corn was planted late and in the event there is an early frost, there will be less corn raised in Indiana this year than for several years past. Some of the early planted corn will be "made" and the crop looks very good at this time. Some of the grain and seed dealers in the state who have been interviewed during the past month by the correspondent of the AMERICAN ELEVATOR AND GRAIN TRADE, say that the pros-

pect for corn in the state is the poorest they ever saw. Farmers in Indiana now are engaged in plowing for their fall planting of wheat and they anticipate no trouble in the getting of plenty of good seed wheat. A much larger acreage of wheat will be sown in Indiana this fall than for several years past, judging from present indications.

E. E. McAtee, who for many years has been traveling representative for the Ohio Valley Seed Company, has severed his connection with this well known firm, but may take up his duties again with the company a little later in the year. Mr. McAtee is widely known among the seed dealers in southern Indiana, southern Illinois and western and northern Kentucky. He recently made a trip to Pike County, Ind., 40 miles north of Evansville and reported that not over one-tenth of the normal corn crop was planted this year in the White River bottoms and he says the future looks very dark for the farmers of that section, as many of them raised little wheat and with the corn crop short they feel they are going to face a rather dark winter.

Most of the Timothy hay crop in Indiana has been harvested. The quality of the crop this season was the best in a number of years and the yield also was good.

The Evansville wholesale seed houses say that in spite of the bad season they have experienced that they are planning for next year's business on a large scale and that they are looking for a good spring trade.

Louis L. Kindermann, of Kindermann's Sons, retail seed dealers at Boonville, Ind., who with his wife and daughter, Lois, has been spending the summer at Jenkins, Minn., is expected to return home in September or October. He has had a most delightful time fishing on the lakes this season, he has written his friends at Boonville and other towns in southern Indiana.

Mrs. Cook, wife of Oscar A. Cook, well known retail seed dealer at Boonville, Ind., left a few days ago for St. Louis to appear in vaudeville in that city and surrounding towns. Mrs. Cook is a talented singer and has been on the stage now for about a year. She is contemplating a trip abroad next year.

John K. Jennings, president of the Diamond Mills in Evansville, and well known among the seed dealers in southern Indiana, who is making a tour of Europe to study industrial and social conditions, is expected to return to his home about the first of September, according to word received by his friends in Evansville.

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A roller bearing lift that you can't wear out—the finest made—yet its cost installed is never more and usually less than for any other reliable device.
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All Grades and Grinds.
We specialize on Fine Ground for Poultry Mashers.
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GRAIN AND SEED DEALERS
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Like Billy Sunday, we deal in both cash and futures, Toledo and Chicago
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GENERAL SEED CONDITIONS

Movement of Bur Clover seed has been faster than usual and prices paid to growers have been higher than last year, according to information obtain by the United States Department of Agriculture. Quality probably averages slightly higher than that of last year. Shippers in South Carolina and Georgia indicated that about 60 per cent of the crop had left growers' hands up to July 26, compared with about 40 per cent last year. Growers have been selling freely at prices averaging about \$9 per 100 pounds for screened seed, compared with \$8 last year.

Seed oats movement in the South was fair and amounted to about the same as last year. Up to July 26, about 35 per cent of the crop had left growers' hands. The greatest movement occurred in Oklahoma and Texas, where 50-75 per cent of the crop had been sold. Movement was slowest in North Carolina, where about 10 per cent of the crop had left growers' hands, compared with 40 per cent last year. In Georgia, about 40 per cent and in Tennessee, about 25 per cent had been moved.

Apparently the quality of the crop is not so good as anticipated, owing to rains at harvest and other causes. The quality of the crop was reported fair to good in South Carolina, fair in North Carolina and Georgia, fair to poor in Texas, and poor in Oklahoma, where the crop is considerably smaller than that of last year.

Movement of seed rye in the South was about the same as last year. Up to July 26 about 25 per cent had been sold by growers. The movement was more active in Georgia than in the Carolinas.

The quality of the crop was reported to be fair in South Carolina and Georgia, and fair to poor in North Carolina and Tennessee.

WHITE CLOVER PRODUCTION SLIGHTLY LARGER

White Clover seed production is expected to be larger than last year in Wisconsin and Idaho, but smaller in Louisiana, according to the United States Department of Agriculture. Acreage in Wisconsin is reported about the same as last year but yield per acre is expected to be greater. Weather conditions in that state have been favorable. Likewise in Idaho, growing conditions have been favorable and a larger yield is expected than last year. Flood waters in Louisiana caused less acreage than last year to be harvested.

Harvesting began in the main producing district in Wisconsin and Idaho about July 30. Movement of the Wisconsin crop is expected to begin about August 5-10. Prices were not established up to August 1.

Carryover is regarded as smaller than the unusually large carryover of last year. Carryover in Europe is also reported somewhat smaller.

Reports from European countries are generally favorable. In England and Germany the crop appears promising. Likewise, a favorable outlook for the coming crop is reported from Hungary, Czechoslovakia and Poland, and considerable seed is expected to be available for export.

Imports of White Clover seed were larger than the average for the last 15 years but were smaller than those of a year ago, which were the highest on record. For the fiscal year ending July 30, 1927, imports amounted to 974,700 pounds, compared with 1,666,400 in 1926, 1,227,300 in 1925, 1,407,500 in 1924, 519,600 in 1923 and about 662,000 pounds, the average annual imports for the past 15 years.

July imports amounted to only 16,700 pounds, compared with 118,600 in 1926, 126,100 in 1925, 22,900 in 1924, 15,100 in 1923 and 49,530 pounds the average of July imports for the past 10 years.

WISCONSIN SEED NEWS

It is still a little too early to tell about the Red Clover seed crop, but Milwaukee handlers think the outlook is almost brilliant. The second crop of Clover in Wisconsin has shot up with vigor because of the frequent rains in most sections of the state. The stand is reported to be heavy and unless there is some unexpected contingency, the crop should be large.

Timothy seed buyers will have another season of cheap seeds, judging from the present market,

the Milwaukee seedsmen say, with the price now only around \$1.50. Information here suggests that Iowa farmers and those of other Timothy growing sections of the west are likely to let their fields grow for hay instead of for seeds.

Milwaukee handlers report that quite a lot of Alsike has already moved from the new crop. Wisconsin has apparently an excellent crop, both from the standpoint of quantity and quality. However, the crop of Alsike seed in surrounding states is reported as less favorable than that of Wisconsin.

White Clover is reported in Milwaukee as not a large crop. No samples have been reported as yet in the local market. The price is more or less nominal as yet because of the lack of movement, but it ranges around 25 cents. Sweet Clover is reported as only a fair yield, not large, judging from the statement of Milwaukee seedsmen. The Dakota and Kansas yields are expected to be only about average. The market here is reported around 12 cents.

Farmers who grow certified seed in Wisconsin are now having their fields inspected in order to get the listing privileges of the Wisconsin College of Agriculture. One of the main points which the inspectors insist upon is that the seed be strictly true to variety without any damaging mixtures. A second point of which much is made is absence of weed contamination.

Three grades of seed have been set by the state—the elite, registered and certified. The elite is the highest grade seed grown under the supervision of the experiment station and is the foundation seed for the other two grades.

Registered seed is grown from the elite and is also carefully inspected, clean and true to type. The certified seed is grown from registered or certified seed and is watched closely by the state to see that it reaches a high standard.

Official figures show that the Alfalfa acreage of Wisconsin will be only about 300,000 acres in 1927 against 341,000 acres the year before. This is a reduction of about 3½ per cent. In some parts of the state Alfalfa acreage was cut about 12 per cent by winter killing. Timothy and Clover acreage have increased enough to offset the loss in Alfalfa area.

NEARLY ALL SEED PRICES BREAK SHARPLY IN NEW YORK

By C. K. TRAFTON

The feeling of optimism in the New York field and grass seeds market seems to have entirely disappeared and prices for practically all varieties are substantially lower, showing losses ranging from ¾ cent to 9 cents per pound. The continuation of excellent grass-growing weather and more definite advances of liberal yields, however, caused holders of small spot supplies to greatly modify their ideas, and hence they have become willing to sell at prices close to what they expect to prevail at the new season's opening. As far as the volume of business is concerned, it has been as small as usual in the varieties which are always dull at this season; and even in the customary summer favorites it has been smaller than expected because of high prices current.

Crimson Clover was the outstanding exception to the general weakness. Early in the month fears were expressed that demand would be greatly restricted in view of the fact that prices were about 100 per cent higher than those ruling a year ago, being at the highest levels seen since 1919, and far above the average of the past 10 years. Nevertheless, it was argued that some buying was inevitable as stocks along the Seaboard were said to be the smallest ever known. In this connection it was pointed out that the official figures from Washington made the total imports for the year ending June 30 only 2,385,000 pounds against 4,834,000 in 1925-26 and 7,744,500 in 1924-25.

Hairy Vetch, usually one of the summer favorites, was another great disappointment to its friends. Early in the month there were some signs of better inquiry when some holders shaded the basis from 16 cents to 15½ cents, but even then fears were expressed that because of the high prices the use of this variety would be greatly curtailed. Later there were scattering reports of slightly more activity after the price was cut to 14½ cents in some directions. Latterly the tone has become much more confident and some holders are again quoting 16 cents owing to reports that some of the Southern Farm Boards have been holding meetings and are expected to place liberal orders. It was pointed out that the quantity available for fall requirements—according to Washington figures—is only 1,280,400 pounds, against 2,132,800 pounds a year ago. Buying for shipment from Europe was of extremely small volume as shippers advanced the basis from 12 cents to 13@14 cents c.i.f. Only 136,000 pounds arrived during the month and whatever additional lots are now en route are not expected to arrive in time to cover nearby needs.

Timothy was as inactive as usual during July and while holders of the small carry-over were not dis-

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posed to shade the previous quotation of 6½ cents early in the month, they subsequently lowered the basis to 6 cents. This was chargeable to the excellent grass-growing weather and expectations of an extremely large crop based on the official report on the hay crop which placed the production of tame hay at 101,000,000 tons, compared with 86,378,000 tons in 1926 and 85,715,000 tons in 1925. This outlook made export business practically impossible and there were no exports.

Kentucky Bluegrass declined 1½@1¾ cents during the month, the 21 pound seed being quoted at 18¾ cents and 19 pound seed at 17 cents. Holders became more anxious to sell owing to the general belief that the old-crop carry-over was so large that supplies in sight are ample for perhaps two years in spite of the relatively small new crop. For this reason many eastern dealers ceased buying in western markets when Missouri and Kentucky shippers advanced the price to 15 cents for 21 pound seed after having sold fairly large quantities at 1 cent less.

Redtop was in extremely slow demand, although the basis was steadily lowered and is now down to 17 cents, compared with 24 cents a month ago. Although stocks were small, holders were eager to liquidate because of prospects of a record-breaking crop and expectations that the season at interior markets would open at about 12@15 cents, whereas the opening last year was at 18 cents with an advance later to 25 cents. There were no exports.

Red Clover, domestic, is 7 cents lower at 33 cents; imported, 3 cents lower at 26 cents. White Clover is unchanged at 30 cents and orchard grass unchanged at 12½ cents.

MONTHLY SEED BULLETIN

Plans have been made by the Bureau of Foreign and Domestic Commerce to issue a monthly bulletin, showing the amount of Clover, Timothy, Alfalfa and other grass seed exported during the preceding month, by countries of destination. The charge for this service will be \$1 per year.

Anyone desiring this service should get in touch with the Bureau of Foreign & Domestic Commerce, Washington, D. C.

WORLD TRADE IN GRASS SEED

The large nations of the world depend upon each other to a large extent for the seed to bring forth the grass in their pastures, meadows, and lawns, and the trade in that seed constitutes a little known but important element in international trade. The seed grown on American prairies to be used to make verdant the meadows and parks of England and Germany and Denmark while French Clover seed is responsible for grass growing on the mountain slopes of Switzerland and in the fields of this country.

The world trade which follows the widespread demand for the various varieties of grass seed is one of considerable value and extent. During 1924 and 1925 an average of at least from 190,000,000 to 200,000,000 pounds of grass seed entered into the channels of world trade, and at an average price of 20 cents a pound the monetary value of that trade was about \$40,000,000 a year.

The five most important seed-handling nations of the world are Germany, the United Kingdom, the United States, Canada and France. The export of grass seed from the five countries mentioned constitutes 70 per cent of the total world shipment. In addition to the trade of those countries, considerable quantities of grass seed are exported or imported by most of the European countries, as well as by Argentina, Chile and New Zealand.

Alfalfa seed is exported principally by France, Canada, Italy, Argentina, and the United States. This trade, however, is of much less importance quantitatively than that in either Clover or Timothy seed.

Clover seed is first in importance in this international trade, and shipments of such seed exceed those of Timothy, Alfalfa and other seeds combined. The largest exporter of Clover seed is France, which during 1924 and 1925 shipped abroad a yearly average of 36,000,000 pounds, or fully one-third of all the Clover seed entering into world commerce in that period. About one-half of the French exportation of this type of seed is purchased by the United States. Other large takers are Germany, Belgium, the United Kingdom, and Switzerland. The best customers for Canadian Clover seed are the United States and the United Kingdom. The relatively small amounts of Clover seed exported from the United States are taken chiefly by the United Kingdom, Canada and Germany.

The United States leads the world as an exporter of Timothy seed and shipped abroad during 1924 and 1925 a yearly average of 14,000,000 pounds, or about 60 per cent of the total exports from all countries. The principal countries of destination of those exports are Canada, United Kingdom, Germany and Denmark. In addition to the United States, the United Kingdom, Irish Free State, Denmark and Germany are large shippers of Timothy seed.

Germany is the world's leading importer of grass

seed. In 1924 and 1925 the total imports of all grass seeds into that country amounted to about 67,000,000 pounds, which constituted practically one-third of the world shipments of seed in that period, but about 37 per cent less than the total of 107,000,000 pounds received in 1913. The United States is the second seed-importing country, with receipts averaging 48,000,000 pounds in 1924 and 1925, while Canada is third, with annual imports amounting to 32,000,000 pounds in 1924 and 1925.

OATS AND BARLEY TESTS

The result of a test of seed oats and barley by the Knox County (Ill.) Farm Bureau which showed less than half of 83 samples to have a germination of better than 75 per cent and comparatively few above 90 per cent, has led that bureau to issue a notice to its members to test their seed oats and barley before seeding time arrives.

Coupled with the poor weather conditions experienced at threshing time, is the additional loss from smut. Some farmers neglected to treat their oats last spring and conditions were favorable for the spread of the disease.

A satisfactory method for treating oats for smut has been prescribed by the University of Illinois as follows:

1. Thoroughly fan and screen the oats.
2. Mix one pint of formalin with 10 gallons of water for each 80 bushels of seed to be treated. Keep this solution covered so as to prevent the formaldehyde gas from escaping.
3. Sprinkle the solution over the oats, using one pint of each bushel, and mix thoroughly.
4. Pile the oats up and cover with blankets, canvas or sacks.
5. After two hours uncover the oats. If they have

(Continued on Page 122)

For Sale

ELEVATORS AND MILLS

FOR SALE REASONABLY

Up-to-date Wisconsin grain elevator, flour and feed house. MARY HAUTERBROOK, 1272 Walnut St., Green Bay, Wis.

GRAIN ELEVATOR FOR SALE

The big brick elevator formerly owned by the Farmers' Elevator Company of Montevideo. Fireproof; 30,000 bushels' capacity; modern equipment. Cost \$35,000. For particulars, write CHAS. F. KNAPP, Receiver, Montevideo, Minn.

A MONEY MAKER FOR SALE

Illinois elevator and annex, 200,000 bushels annually. On main line C. B. & Q. R. R. Must dispose of same immediately. FIRST NATIONAL BANK, Galva, Ill.

MACHINERY

FOR SALE

One No. 1 Birdsell Huller, complete, and one No. 2 Russell Sawmill. ALVIN H. FASNACHT, R. F. D. 4, Massillon, Ohio.

FOR SALE

No. 4 Unique Batch Mixer, motor attached. Robinson Mfg. Co., builders. New; never unpacked. W. K. LEPPER, Gloversville, N. Y.

FOR SALE—PRICED RIGHT

One 24-inch Dreadnaught Single Head Attrition Feed Grinder, in good condition. Also a few pulleys and two small stands of elevator belt and buckets. LAPEL LUMBER & GRAIN CO., Lapel, Ind.

FOR SALE

One No. 2 Gruendler Hammer Style Mill Pulley Drive, all complete with new No. 5 Gruendler Blower. Dust collector and six extra screens. Can furnish counter shaft pulley for same, 10x40 diameter, all complete in A-1 shape, \$350. Have 1-4C Howell Roller Mill, four roll, 6x20 rolls, A-1 shape with 16-ft. elevator. Looks like new. Price \$160. HOTTMAN GRAIN COMPANY, Tolstoy, S. D.

FOR SALE

Pulleys, 1,000; all sizes, solid cast iron, wood and steel split. Elevator belts and buckets and supplies. STANDARD MILL SUPPLY COMPANY, 501 Waldheim Building, Kansas City, Mo.

FOR SALE

New Unique Mill complete, consisting of cleaner, Beall Corn Steamer, Beall Corn Degerminator, one 450-bushel drier, 20-ft. Caldwell Conveyor, one aspirator, two vertical French Burrs, one small sifter, one large reel, one grinding bin, one sacking bin, seven elevators, extra shafting and pulleys. Daily capacity, 50 to 100 barrels. Can be easily removed. Requires floor space of less than 30 to 40 feet. Will make white flour, corn flour, corn meal, rice meal, barley flour and most ideal for whole wheat flour. Cost \$10,000; will sell for \$2,500. Terms, one-half cash, one-half good security at 6 per cent.

MID-CONTINENT MILLING COMPANY, Kansas City, Mo.

Miscellaneous Notices

FOR SALE

Site of the Farmers' Elevator Company at Elkhart, Iowa; also good double crib of 9,000 bushels' capacity. If interested, write or call. GEO. B. VOLZ, SEC'Y, Elkhart, Iowa.

WANTED

Position as manager of grain elevator. Am 39; married; one child. Have been in grain business all my life; am competent. Would like connection that would lead to part or entire ownership. N. B. M., 111 S. High St., Warsaw, Ind.

POSITION WANTED

As miller in corn goods and feed mill where all kinds of mill feed, cornmeal, grits, poultry and dairy feeds are manufactured. Am experienced in this line of milling, also repairing and millwright work. K., Box 3, care AMERICAN ELEVATOR AND GRAIN TRADE, 431 S. Dearborn St., Chicago, Ill.

FLOUR MILLS — FEED MILLS

Turn mill failures into successes. Turn unprofitable flour mills into successful feed mills. Get my inspection for success. I flow, plan, inspect, appraise, test, remodel and build flour and feed mills. Finest references. Prices reasonable. Consult me now. Get my books from the AMERICAN MILLER. C. E. OLIVER, E. M. & M. E., Warsaw, Ind.

HAY WANTED

Get full market value for your hay and straw. Ship to ALBERT MILLER & CO., 192 N. Clark St., Chicago, Ill. ALFALFA HAY for sale. Write for delivered prices.

Land Opportunities

FOR SALE IN CANADA

Improved 1,250 acres near Winnipeg, river frontage; shows excellent returns. Price \$50 per acre. D. L. ARNDT, 290 Third St., Milwaukee, Wis.

FOR SALE IN CANADA

Some wonderful bargains in farm lands, either cropped and equipped or wild land; no stones, no hills; no cyclones or floods. We have been able to bring about some very profitable exchanges for our clients. Write for particulars. AMERICAN LAND & LOAN CO., 35 C. P. R. Bldg., Winnipeg, Man., Canada.

been thoroughly mixed they will have absorbed the moisture so thoroughly that they will be dry enough to sow at once in a broadcast seeder or drill.

6. If the oats are not to be seeded at once, they should be spread out in a thin layer and stirred occasionally to allow the escape of the formaldehyde gas. Care should be taken that the oats are not piled up or covered longer than the specified time.

X-RAY FOR INCREASING YIELD

After years of experimenting, Dr. Moses Jacobson, Russian botanist now living at Camden, N. J., has been able to increase the yield of seeds, bulbs and tubers by exposing them to mild X-ray treatment. Dr. Jacobson began his experiments while professor of agronomy in the Agricultural College of Cory-Gori, Russia, and continued them when he came to Camden.

His early experiments gave no positive results, because the rays were applied too strong. He believed that something could be done, however, with his method, and kept on later experimenting with weakened, or "soft" rays. He places the seeds in a pan and submits them to X-rays at an angle of 45 degrees, taking care that each seed is reached by the rays. This is done for varied lengths of time, according to the results desired. The seeds are then planted and it has been found that they produce larger plants in a shorter time than seeds not thus treated and that their yield is increased one-third.

Dr. John W. Harshberger, president of the Botanical Society of Pennsylvania and professor of botany at the University, said:

"X-raying of seeds might be done in a co-operative way. The seeds might be taken to a central plant and submitted to the rays and then distributed among farmers by a county agent. Naturally, some time must elapse before this can be accomplished. The matter is still in its experimental stage, but it is worthy of serious consideration and will probably prove of distinct importance in the agricultural world."

A seed business is to be opened at Exmore, Va., by C. J. Prettyman.

A building in St. Louis, Mo., has been leased by the Palmer Seed Company.

Holland Page is manager of the Lockhart Seed Company which has been organized at Lockhart, Texas.

A seed corn drying plant is now being built at Howard Lake, Minn., for Northrup, King & Co. It will be ready for the fall crop.

James F. Shields has retired from active partici-

pation in the Shields Seed & Feed Store at Salisbury, Md. His son-in-law, F. E. M. Early, will conduct it.

H. L. Holmes, Jr., has resigned as secretary and manager of the wholesale field seed house of Holmes-Letherman Seed Company of Canton, Ohio.

The interests of Wm. Asher in the Dakota Improved Seed Company of Mitchell, S. D., have been sold by him. He had bought the Haynes Feed & Coal Company of Mitchell.

Improvements are being made to the plant of the Gurney Seed & Nursery Company, field seed dealers of Yankton, S. D.

A new warehouse is being built at Lake Hendricks, S. D., for Geo. P. Sexauer & Co., of Brookings, S. D. The company has also completed a new seed warehouse at Onida, S. D.

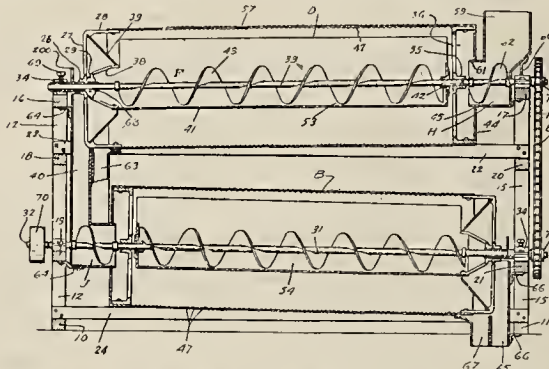
S. V. Robertson has bought the entire stock of the Buchanan Seed & Feed Company of Anniston, Ala. The name of the firm has been changed to the Robertson Feed & Seed Company.

GRAIN TRADE PATENTS

Bearing Date of April 19, 1927

Grain separator.—Haakon Mjolsness, Chaffee, N. D. Filed April 12, 1923. No. 1,625,088. See cut.

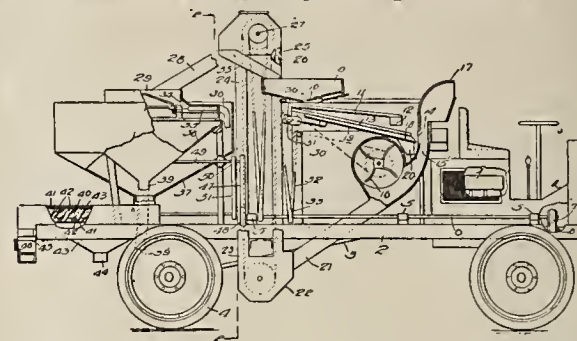
Claim: A grain separator comprising a cylinder, a conveyor within said cylinder coaxially mounted relative thereto, spiders for supporting said cylinder and



conveyor at one end, said cylinder and conveyor being adapted to discharge through said spiders, and means for separating the tailings from said cylinder and discharge from said conveyor as the same passes through said spiders.

Portable apparatus for cleaning and grading grain seed and the like.—Russell V. Judson, Detroit, Mich. Filed January 11, 1927. Original dated January 13, 1925. Filed March 12, 1921. Reissued. No. 16,600. See cut.

Claim: In combination with a vehicle and a power member mounted thereon, apparatus mounted on said vehicle adapted to receive threshed grain and including mechanism for separating out chaff and dirt, mechanism for separating rough imperfect grain from smooth



grain and mechanism for polishing and cleaning the grain, means for conducting the grain from each mechanism to the next and driving connections from said power member adapted to operate all said apparatus simultaneously.

A PETITION in bankruptcy has been filed by Kurt Huebner, dealer in grain, coal and radio supplies at Cato, Wis. His liabilities are \$26,214 and assets \$44,950.

MORRIS MEYER and Ralph McElroy have been appointed receivers for the Forest Farmers Co-operative Company operating two grain elevators at Forest, Ohio.

UNITED STATES exports of rye have been running very light during the past month, amounting to only 24,000 bushels for the week of July 23. For the period from July 1 to 23 this year, only 5 per cent as much rye was exported as for the same period last year, when 2,158,000 bushels were sent out.

EXPORTS from Argentina during July included the following items, according to a cablegram from A. B. Dye, American commercial attache at Buenos Aires, in metric tons: Wheat, 246,000 (9,038,000 bushels); corn, 942,000 (37,087,000 bushels); linseed, 124,000 (4,482,000 bushels); oats, 49,000 (3,376,000 bushels); barley, 17,000 (781,000 bushels); and flour, 12,000 (135,000 barrels).

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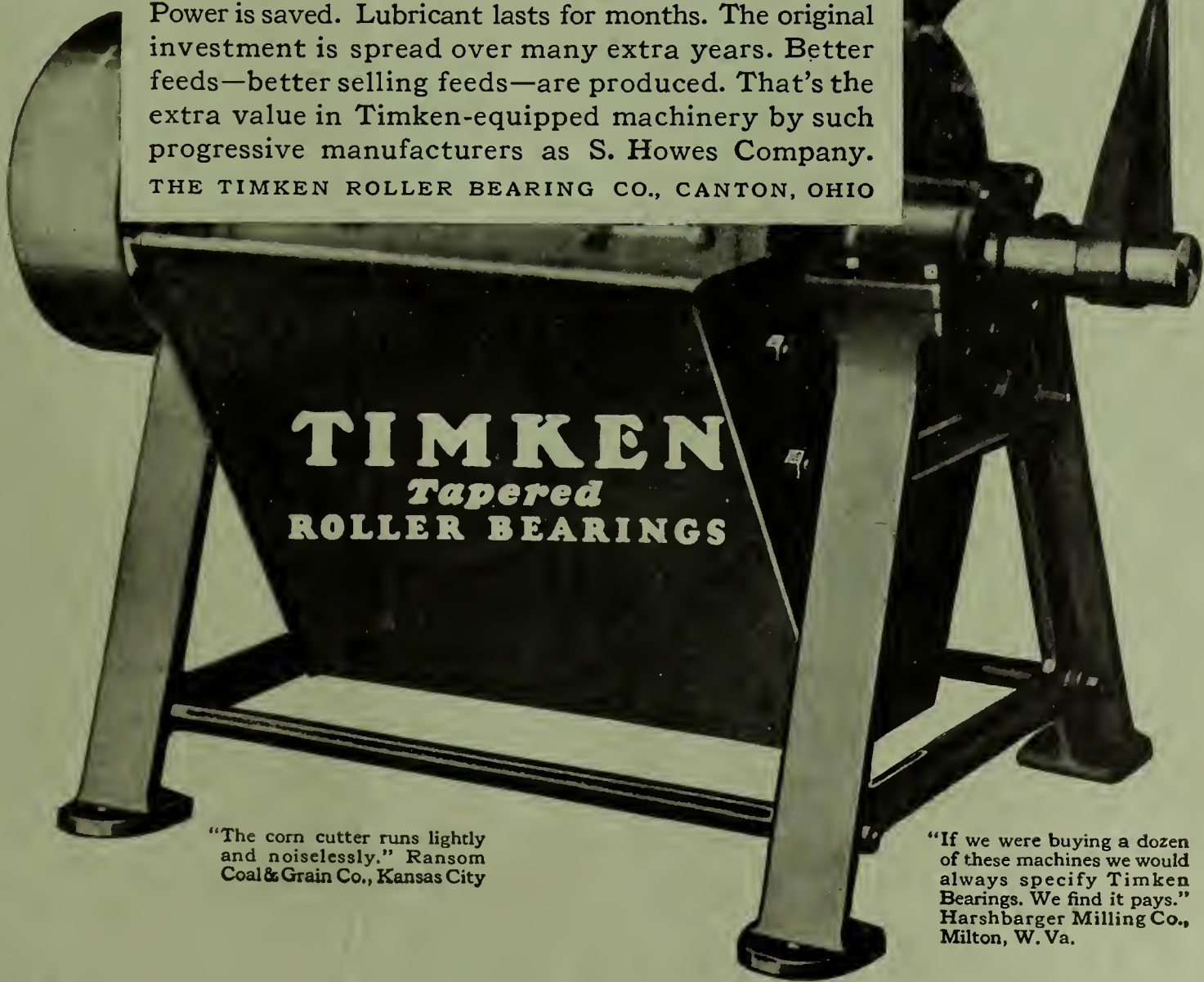


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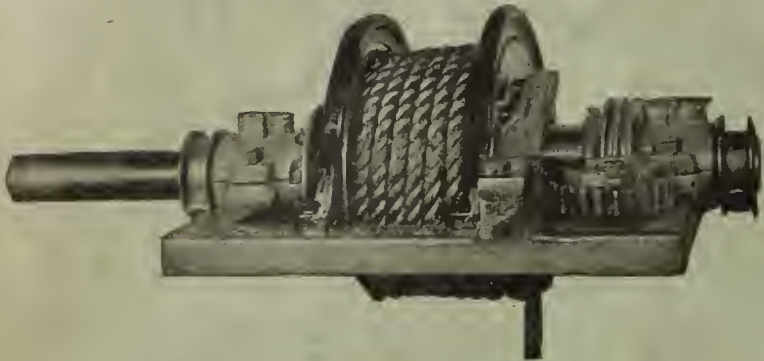
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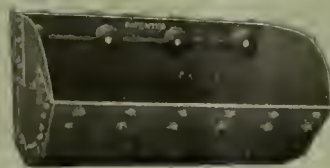
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